# **Product: 1 - Animal Allergens, Camel Hair Camelus sp.**

Recommended Scientific Name Camelus, (species to be specified)

## **Manufacturers of this Product**

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

## **Search Strategy**

PubMed - camel allergy, camel hair allergy, camel hair extract, camelus allergy, camel hair, camel immunotherapy, camel skin test, camel hair skin test, camel hair allergenic extract

ISI - camel hair extract, camel allergy

Google – Camel, "adverse events"; camel hair extract, "adverse events"; camel hair, "adverse events"; camel hair, "adverse events"; camel hair immunotherapy, "adverse events"; camel hair "allergenic extract", "adverse events"; camel hair allergenic extracts, "adverse events"

#### **Nomenclature**

According to ITIS, there are two species of Camelus: bactrianus and dromedarius. The Camelus genus is found in the family Camelidae.

#### **Parent Product**

1 - Animal Allergens, Camel Hair Camelus sp.

#### **Published Data**

No papers were found regarding the use of camel hair extracts in the direct diagnosis or therapy of camel allergy. One case report (PMID 8630715) of a deer farmer allergic to deer who was SPT positive to deer, camel hair, sheep and goat extracts was found. One paper (PMID 9109711) reported on a general skin testing survey of patients in Eastern Saudi Arabia. Camel hair extract was one of several allergens used. No reactivity to camel hair allergen extracts was reported in the paper.

<u>Documents</u>	PubMed Number Autho	Year Published
1_ Annals Allergy 76-423.pdf	8630715	0
1_ Annals Allergy 78-415.pdf	9109711	0

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 2 - Animal Allergens, Canary Feathers Serinus canarius**

Recommended Scientific Name Serinus canaria

**Manufacturers of this Product** 

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

## **Search Strategy**

PubMed- canary feather, canary skin test, canary allergy, canary feather skin test

ISI - canary feather, canary allergy, canary skin test

Google - canary feather allergy, canary skin test, canary adverse events

# **Nomenclature**

According to ITIS, the name, Seriunus canarius is misspelled. The correct spelling is Serinus canaria. The common name, Atlantic or common canary, is correct. The Serinus genus is found in the subfamily Carduelinae.

# **Parent Product**

2 - Animal Allergens, Canary Feathers Serinus canarius

## **Published Data**

Pulmonary hypersensitivity to various avian antigens is well-documented in the literature. Skin testing is not generally considered useful for diagnosis of this disease and this is not an approved indication for these products. Literature reports on asthma or rhinitis to bird feathers (PMID: 8074264, 3192303 and 2410373), serum (PMID: 8074264), or droppings, and bird-egg syndrome (PMID: 9048530, 8409123, 3192303 and 1789403), in which cross-reactive antigens to bird inhalable antigens and egg proteins. Several papers on allergies to canary feathers present, including case-reports (PMID: 8409123), in vitro studies (PMID: 2410373), in-vitro studies with supporting patient data (PMID: 2410373), and cross-reactivity studies (PMID: 2410373 and 3192303).

<u>Documents</u>	PubMed Number	<u>Author</u>	<u>rear Published</u>
2_ Int Arch Allergy Apppl Immunol 87-143.pdf	3192303	Mandallaz, M.M.	1988
2_ Int Arch Allergy Appl Immunol 77-433.pdf	2410373	van Tooreneberger	n, A 1985
2_ Allergy 49-448.pdf	8074264	Tauer-Reich, I.	1994
7_ J Allergy Clin Immunol 92-628.pdf	8409123	Anibarro, B.	1993
2_ Allergy 46-614.pdf	1789403	Bausela, Anibarro E	3. 1991
2_ Ann Allergy Asthma Immunol 78-213.pdf	9048530	Bauela ,B.A.	1997

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 3 - Animal Allergens, Cattle Dander Bos taurus**

## **Manufacturers of this Product**

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223) Allermed Laboratories, Inc. - San Diego, CA (Lic. No. 467, STN No. 102211)

Nelco Laboratories, Inc. - Deer Park, NY (Lic. No. 459, STN No. 102192)

#### **Search Strategy**

PubMed and ISI - cattle dander allergy, cattle dander extract, cattle dander allergy diagnosis, cattle dander skin test, cattle dander skin prick test, cattle dander immunotherapy. Similar searches with cattle hair and epithelium

Google – cattle extract, "adverse events"; cattle hair extract, "adverse events"; cattle hair, "adverse events"; "cattle hair", "adverse events"; cattle hair "allergenic extract", "adverse events"; cattle hair skin test, "adverse events". Similar searches with cattle epithelium and cattle dander

# **Nomenclature**

According to ITIS, there are five species within the genus of Bos. The domestic cow is Bos taurus. The scientific and common names are correct. The Bos genus is found within the Bovinae subfamily and Bovidae family.

#### **Parent Product**

3 - Animal Allergens, Cattle Dander Bos taurus

## **Related Products**

- 4 Animal Allergens, Cattle Epithelium, Bos sp.
- 5 Animal Allergens, Cattle Hair and Dander Bos sp
- 6 Animal Allergens, Cattle Hair Bos sp

#### **Published Data**

Asthma, rhinitis, and contact dermatitis upon cattle exposure are all reported in the literature. Subsequent to the Panel I review, several allergens responsible for cattle allergy were identified and characterized (PMID: 7068248, 9469201, 7337202). PMID 12853550 includes a bronchial challenge. Bos d 2, a 20 Kd protein from the lipocalin family, is the major allergen reported (PMID: 12372125). PMID 1282840 estimates dander extracts have 3 - 5 times the Bos d 2 of hair extracts. These data suggest that any cattle extract containing dander will contain the major Bos d 2 allergen, and Bos d 2 was found in dander, hair, dander plus hair, and epithelial extracts. PMIDs 8630715 and 9061220 identify cross reactivity with deer.

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
3_ Allergy 36-561.pdf	7337202	Prahl, P.	1981
3_ Int Arch Allergy Appl Immunol 67-293.pdf	7068248	Prahl, P.	1982
3_ Allergol Immunopathol 25-259.pdf	9469201	Santiago, A.L. Va	lerio 1997
3_ Clin Exp Allergy 32-1454.pdf	12372125	Zeiler, T.	2002
3_ Chest 124-383.pdf	12853550	Koskela, H.	2003
3_ Int Arch Allergy Immunol 99-112.pdf	1282840	Ylonen, J.	1992
3_ Ann Allergy Asthma Immunol 76-423.pdf	8630715	Nahm, D.H.	1996
3_ Clin Exp Allergy 27-196.pdf	9061220	Spitzauer, S.	1997

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 4 - Animal Allergens, Cattle Epithelium, Bos sp.**

Recommended Scientific Name Bos taurus

## **Manufacturers of this Product**

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

ALK-Abello Inc. - Port Washington, NY (Lic. No. 1256, STN No. 103753)

## **Search Strategy**

PubMed and ISI - cattle epithelium allergy, cattle epithelium extract, cattle epithelium allergy diagnosis, cattle epithelium skin test, cattle epithelium skin prick test

Google – cattle extract, "adverse events"; cattle hair extract, "adverse events"; cattle hair, "adverse events"; "cattle hair extract", "adverse events"; "cattle hair", "adverse events"; "cattle hair", immunotherapy, "adverse events"; cattle hair "allergenic extract", "adverse events"; cattle hair skin test, "adverse events". Similar searches with cattle epithelium and cattle dander

#### **Nomenclature**

According to ITIS, there are five species within the genus of Bos. The domestic cow is Bos taurus. The common name is correct. The Bos genus is found within the Bovinae subfamily and Bovidae family.

#### **Parent Product**

3 - Animal Allergens, Cattle Dander Bos taurus

# **Related Products**

- 4 Animal Allergens, Cattle Epithelium, Bos sp.
- 5 Animal Allergens, Cattle Hair and Dander Bos sp
- 6 Animal Allergens, Cattle Hair Bos sp

# **Published Data**

Asthma, rhinitis, and contact dermatitis upon cattle exposure are all reported in the literature. Subsequent to the Panel I review, several allergens responsible for cattle allergy were identified and characterized (PMID: 7068248, 9469201, 7337202). PMID 12853550 includes a bronchial challenge. Bos d 2, a 20 Kd protein from the lipocalin family, is the major allergen reported (PMID: 12372125). PMID 1282840 estimates dander extracts have 3 - 5 times the Bos d 2 of hair extracts. These data suggest that any cattle extract containing dander will contain the major Bos d 2 allergen, and Bos d 2 was found in dander, hair, dander plus hair, and epithelial extracts. PMIDs 8630715 and 9061220 identify cross reactivity with deer.

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
3_ Clin Exp Allergy 32-1454.pdf	12372125	Zeiler, T.	2002
3_ Int Arch Allergy Immunol 99-112.pdf	1282840	Ylonen, J.	1992
3_ Allergy 36-561.pdf	7337202	Prahl, P.	1981
3_ Int Arch Allergy Appl Immunol 67-293.pdf	7068248	Prahl, P.	1982
3_ Allergol Immunopathol 25-259.pdf	9469201	Santiago, A.L. Vale	erio 1997
3_ Chest 124-383.pdf	12853550	Koskela, H.	2003
3_ Ann Allergy Asthma Immunol 76-423.pdf	8630715	Nahm, D.H.	1996
3_ Clin Exp Allergy 27-196.pdf	9061220	Spitzauer, S.	1997

# Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 5 - Animal Allergens, Cattle Hair and Dander Bos sp**

Recommended Scientific Name Bos taurus

## **Manufacturers of this Product**

Hollister-Stier Labs, LLC - Spokane, WA (Lic. No. 1272, STN No. 103888)

#### **Search Strategy**

PubMed and ISI - cattle dander allergy, cattle dander extract, cattle dander allergy diagnosis, cattle dander skin test, cattle dander skin prick test, cattle dander immunotherapy. Similar searches with cattle hair and epithelium.

Google – cattle extract, "adverse events"; cattle hair extract, "adverse events"; cattle hair, "adverse events"; "cattle hair extract", "adverse events"; "cattle hair", "adverse events"; "cattle hair", immunotherapy, "adverse events"; cattle hair "allergenic extract", "adverse events"; cattle hair skin test, "adverse events". Similar searches with cattle epithelium and cattle dander

## **Nomenclature**

According to ITIS, there are five species within the genus of Bos. The domestic cow is Bos taurus. The common name is correct. The Bos genus is found within the Bovinae subfamily and Bovidae family.

#### **Parent Product**

3 - Animal Allergens, Cattle Dander Bos taurus

## **Related Products**

- 4 Animal Allergens, Cattle Epithelium, Bos sp.
- 5 Animal Allergens, Cattle Hair and Dander Bos sp
- 6 Animal Allergens, Cattle Hair Bos sp

#### **Published Data**

Asthma, rhinitis, and contact dermatitis upon cattle exposure are all reported in the literature. Subsequent to the Panel I review, several allergens responsible for cattle allergy were identified and characterized (PMID: 7068248, 9469201, 7337202). PMID 12853550 includes a bronchial challenge. Bos d 2, a 20 Kd protein from the lipocalin family, is the major allergen reported (PMID: 12372125). PMID 1282840 estimates dander extracts have 3 - 5 times the Bos d 2 of hair extracts. These data suggest that any cattle extract containing dander will contain the major Bos d 2 allergen, and Bos d 2 was found in dander, hair, dander plus hair, and epithelial extracts. PMIDs 8630715 and 9061220 identify cross reactivity with deer.

<u>Oocuments</u>	PubMed Number	<u>Author</u>	Year Published
3_ Allergy 36-561.pdf	7337202	Prahl, P.	1981
3_ Int Arch Allergy Appl Immunol 67-293.pdf	7068248	Prahl, P.	1982
3_ Allergol Immunopathol 25-259.pdf	9469201	Santiago, A.L. Vale	erio 1997
3_ Chest 124-383.pdf	12853550	Koskela, H.	2003
3_ Int Arch Allergy Immunol 99-112.pdf	1282840	Ylonen, J.	1992
3_ Clin Exp Allergy 27-196.pdf	9061220	Spitzauer, S.	1997
3_ Clin Exp Allergy 32-1454.pdf	12372125	Zeiler, T.	2002
3_ Ann Allergy Asthma Immunol 76-423.pdf	8630715	Nahm, D.H.	1996

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# Product: 6 - Animal Allergens, Cattle Hair Bos sp

Recommended Scientific Name Bos taurus

**Manufacturers of this Product** 

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

## Search Strategy

PubMed and ISI - cattle dander allergy, cattle dander extract, cattle dander allergy diagnosis, cattle dander skin test, cattle dander skin prick test, cattle dander immunotherapy. Similar searches with cattle hair and epithelium Google – cattle extract, "adverse events"; cattle hair extract, "adverse events"; cattle hair, "adverse events"; "cattle hair, "adverse events"; "cattle hair, "adverse events"; cattle hair, "adverse event

"adverse events"; cattle hair skin test, "adverse events". Similar searches with cattle epithelium and cattle dander

#### **Nomenclature**

According to ITIS, there are five species within the genus of Bos. The domestic cow is Bos taurus. The common name is correct. The Bos genus is found within the Bovinae subfamily and Bovidae family.

#### **Parent Product**

3 - Animal Allergens, Cattle Dander Bos taurus

# **Related Products**

- 4 Animal Allergens, Cattle Epithelium, Bos sp.
- 5 Animal Allergens, Cattle Hair and Dander Bos sp
- 6 Animal Allergens, Cattle Hair Bos sp

# **Published Data**

Asthma, rhinitis, and contact dermatitis upon cattle exposure are all reported in the literature. Subsequent to the Panel I review, several allergens responsible for cattle allergy were identified and characterized (PMID: 7068248, 9469201, 7337202). PMID 12853550 includes a bronchial challenge. Bos d 2, a 20 Kd protein from the lipocalin family, is the major allergen reported (PMID: 12372125). PMID 1282840 estimates dander extracts have 3 - 5 times the Bos d 2 of hair extracts. These data suggest that any cattle extract containing dander will contain the major Bos d 2 allergen, and Bos d 2 was found in dander, hair, dander plus hair, and epithelial extracts. PMIDs 8630715 and 9061220 identify cross reactivity with deer.

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
3_ Int Arch Allergy Appl Immunol 67-293.pdf	7068248	Prahl, P.	1982
3_ Allergy 36-561.pdf	7337202	Prahl, P.	1981
3_ Allergol Immunopathol 25-259.pdf	9469201	Santiago, A.L.	Valerio 1997
3_ Clin Exp Allergy 32-1454.pdf	12372125	Zeiler, T.	2002
3_ Chest 124-383.pdf	12853550	Koskela, H.	2003
3_ Int Arch Allergy Immunol 99-112.pdf	1282840	Ylonen, J.	1992
3_ Ann Allergy Asthma Immunol 76-423.pdf	8630715	Nahm, D.H.	1996
3_ Clin Exp Allergy 27-196.pdf	9061220	Spitzauer, S.	1997

# Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 7 - Animal Allergens, Chicken Feathers Gallus sp.**

**Recommended Scientific Name** 

Gallus gallus

## **Manufacturers of this Product**

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

Hollister-Stier Labs, LLC - Spokane, WA (Lic. No. 1272, STN No. 103888)

ALK-Abello Inc. - Port Washington, NY (Lic. No. 1256, STN No. 103753)

Allermed Laboratories, Inc. - San Diego, CA (Lic. No. 467, STN No. 102211)

Nelco Laboratories, Inc. - Deer Park, NY (Lic. No. 459, STN No. 102192)

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

## **Search Strategy**

PubMed and ISI - Chicken feather allergy, chicken feather extract, chicken feather skin test, chicken feather immunotherapy, chicken, asthma, hen feather allergy, hen feather extract, hen feather skin test, hen feather immunotherapy, poultry feather skin test, poultry feather immunotherapy

Google – chicken feather, "adverse events"; chicken feather extract, "adverse events"; chicken feather immunotherapy, "adverse events"; chicken feather immunotherapy; chicken feather "skin test", "adverse events"

#### **Nomenclature**

According to ITIS, there are four species within the Gallus genus. The species are G. gallus, G. lafayettii, G. sonneratii, and G. varius. G. gallus (red junglefowl) is believed to be the ancestor of the domestic fowl. The Gallus genus is found in the Phasianianae subfamily and Phasianidae family.

## **Parent Product**

7 - Animal Allergens, Chicken Feathers Gallus sp.

#### **Published Data**

Skin testing and RAST testing for feather proteins are diagnostic for chicken protein associated asthma (PMID: 6699310). Birdegg syndrome, in which cross-reactive antigens to bird inhalable antigens and egg proteins is reported in the literature. The primary egg antigen identified in the syndrome is alpha livetin (chicken serum albumin) (PMID: 8182236), which is found in egg yolk. Cross-reactivity to antigens from different birds is also reported in this syndrome (PMID: 8409123), particularly parakeet, canary, and chicken (PMID: 8074264, 11488669, 1789403, 9048530).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
7_ J Allergy Clin Immunol 93-932.pdf	8182236	Szepfalusi Z	1994
7_ J Allergy Clin Immunol 73-271.pdf	6699310	Bar-Sela, S.	1984
7_ Ann Allergy Asthma Immunol 78-213.pdf	9048530	Bauela ,B.A.	1997
7_ Allergy 46-614.pdf	1789403	Bausela, Anibarro	B. 1991
7_ J Allergy Clin Immunol 92-628.pdf	8409123	Anibarro, B.	1993
2_ Allergy 49-448.pdf	8074264	Tauer-Reich, I.	1994
7_ Allergy 56-754.pdf	11488669	Quirce, S.	2001

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 8 - Animal Allergens, Deer Hair Odocoileus**

Recommended Scientific Name Oc

Odocoileus virginianus

**Manufacturers of this Product** 

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

#### **Search Strategy**

PubMed - deer allergy, deer hair allergy, deer hair skin test, deer hair extract, deer hair immunotherapy, deer skin test, odocoileus allergy, deer hair allergenic extract

Google – deer, "adverse events"; deer hair, "adverse events"; deer hair extract, "adverse events"; deer, "allergenic extract", "adverse events"; "deer hair", skin test; "deer hair", skin prick test; "deer hair", "allergenic extract"; "deer hair", "immunotherapy"

# **Nomenclature**

According to ITIS, there are two species of Odocoileus. They are O. hemionus and O. virginianus. The common names are mule deer and white-tailed deer. The Odocoileus genus is found within the Capreolinae subfamily and Cervidae family.

#### **Parent Product**

8 - Animal Allergens, Deer Hair Odocoileus

#### **Published Data**

Case reports and papers in literature demonstrate positive SPT and specific IgE (RAST) to deer hair and/or dander extracts in patients with clinical symptoms upon exposure to deer (PMID: 3875300, 11101178, 8630715). Cross-reactivity to cattle extracts is also reported (PMID: 9061220). Genus and species of deer extracts was not identified in the papers with the exception of one case report (PMID: 8630715) of allergy to red deer, which is in a different subfamily than white-tailed, mule deer, or black-tailed deer, the 3 main species of deer in the US. Current licensed product identified only to genus level, and no papers report directly on cross-reactivity of different species.

Chronic Wasting Disease (CWD), a transmissible spongiform encephalopathy, has been reported in both captive and wild US deer and Elk populations (PMID: 15207045). There are no studies in the literature indicating direct transmission of CWD from deer to humans, but it is recognized in literature that sufficient data are not available to state definitively that CWD cannot be transmitted to humans. CBER's concerns about these extracts were discussed, briefly, before the Allergenic Products Advisory Committee in 2001.

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
3_ Clin Exp Allergy 27-196.pdf	9061220	Spitzauer, S.	1997
8_ Ann Allergy 55-122.pdf	3875300	Gillespie, Donald N	N. 1985
8_ Ann Allergy Asthma Immunol 85-372.pdf	11101178	Amrol, David J	2000
8_ Emerging Infect Dis 10-977.pdf	15207045	Belay, Ermias D.	2004
8_ Ann Allergy Asthma Immunol 76-423.pdf	8630715	Nahm, D.H.	1996

# Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 9 - Animal Allergens, Dog Dander Canis spp.**

**Recommended Scientific Name** 

Canis lupus familiaris

## **Manufacturers of this Product**

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

Hollister-Stier Labs, LLC - Spokane, WA (Lic. No. 1272, STN No. 103888)

Allermed Laboratories, Inc. - San Diego, CA (Lic. No. 467, STN No. 102211)

Nelco Laboratories, Inc. - Deer Park, NY (Lic. No. 459, STN No. 102192)

# **Search Strategy**

PubMed - Dog hair allergy, dog epithelium allergy, dog dander allergy, dog dander, dog asthma, dog allergen, dog allergenic extracts, dog dander allergenic extracts, dog epithelium allergenic extract, dog skin prick test, dog hair skin prick test, dog epithelium skin prick test, dog allergy immunotherapy, poodle allergy, poodle skin prick test, poodle hair extract

Google – dog extract, "adverse events"; "dog hair" extract, "adverse events"; dog dander extract, "adverse events"; "dog dander extract, "adverse events"; dog, "allergenic extract", "adverse events"; dog, "skin test", "adverse events"; dog, "immunotherapy", "adverse events"; similar searches with poodle

# **Nomenclature**

According to ITIS, there are six species of Canis. They are: C. adustus, C. aureus, C. latrans, C. lupus, C. mesomelas, and C. simensis. The scientific name of the domestic dog is Canis lupus familiaris. The Canis genus is found in the Canidae family.

#### **Parent Product**

10 - Animal Allergens, Dog Epithelium Canis familiaris

## **Related Products**

- 9 Animal Allergens, Dog Dander Canis spp.
- 11 Animal Allergens, Dog Hair Canis spp.
- 42 Animal Allergens, Poodle Hair

#### **Published Data**

Dog allergens have been found in serum, dander, pelt, hair and saliva. Skin testing is associated with provocation testing (PMID: 6846924). The primary allergens are identified as Can f 1, Can f 2, Can f 3 and Can f 4. Dog allergens can be found in places where dogs have not been present in sufficient amounts to cause symptoms in sensitive patients (PMID: 15241352). Some cross-reactivity between dog and cat allergens and other epidermal allergens have been reported (PMID: 9003217). Studies do not show breed specific differences in allergens. However, differences in the concentration of allergen (Can f 1) present in different breeds have been shown (PMIDs 6230948, 15969688, 2457041).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
9_ J Allergy Clin Immunol 114 - 111.pdf	15241352	Arbes, Samuel Jr.	2004
9_ Ann Allergy 50-340.pdf	6846924	Vanto, T.	1983
9_ J Allergy Clin Immunol 99 - 100.pdf	9003217	Spitzauer, S.	1997
9_ J Allergy Clin Immunol 82 - 196.pdf	2457041	Lindgren	1988
9_ Allergy 60 - 1060.pdf	15969688	Ramadour, M.	2005
9_ Allergy 39-133.pdf	6230948	Uhlin, T.	1984

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category I	Category I
Therapy:	Category IIIA	Category I

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# Product: 10 - Animal Allergens, Dog Epithelium Canis familiaris

Recommended Scientific Name

Canis lupus familiaris

#### **Manufacturers of this Product**

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

ALK-Abello Inc. - Port Washington, NY (Lic. No. 1256, STN No. 103753)

# **Search Strategy**

PubMed - Dog hair allergy, dog epithelium allergy, dog dander allergy, dog dander, dog asthma, dog allergen, dog allergenic extracts, dog dander allergenic extracts, dog epithelium allergenic extract, dog skin prick test, dog hair skin prick test, dog epithelium skin prick test, dog allergy immunotherapy, poodle allergy, poodle skin prick test, poodle hair extract

Google – dog extract, "adverse events"; "dog hair" extract, "adverse events"; dog dander extract, "adverse events"; "dog dander" extract, "adverse events"; dog, "allergenic extract", "adverse events"; dog, "skin test", "adverse events"; dog, "immunotherapy", "adverse events"; similar searches with poodle

# **Nomenclature**

According to ITIS, there are six species of Canis. They are: C. adustus, C. aureus, C. latrans, C. lupus, C. mesomelas, and C. simensis. The scientific name of the domestic dog is Canis lupus familiaris. The Canis genus is found in the Canidae family.

## **Parent Product**

10 - Animal Allergens, Dog Epithelium Canis familiaris

## **Related Products**

- 9 Animal Allergens, Dog Dander Canis spp.
- 11 Animal Allergens, Dog Hair Canis spp.
- 42 Animal Allergens, Poodle Hair

## **Published Data**

Dog allergens have been found in serum, dander, pelt, hair and saliva. Skin testing is associated with provocation testing (PMID: 6846924). The primary allergens are identified as Can f 1, Can f 2, Can f 3 and Can f 4. Dog allergens can be found in places where dogs have not been present in sufficient amounts to cause symptoms in sensitive patients (PMID: 15241352). Some cross-reactivity between dog and cat allergens and other epidermal allergens have been reported (PMID: 9003217). Studies do not show breed specific differences in allergens. However, differences in the concentration of allergen (Can f 1) present in different breeds have been shown (PMIDs 6230948, 15969688, 2457041).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
9_ J Allergy Clin Immunol 114 - 111.pdf	15241352	Arbes, Samuel Jr.	2004
9_ Ann Allergy 50-340.pdf	6846924	Vanto, T.	1983
9_ J Allergy Clin Immunol 99 - 100.pdf	9003217	Spitzauer, S.	1997
9_ J Allergy Clin Immunol 82 - 196.pdf	2457041	Lindgren	1988
9_ Allergy 39-133.pdf	6230948	Uhlin, T.	1984
10_ Allergy 60 - 1060.pdf	15969688	Ramadour, M.	2005

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category I	Category I
Therapy:	Category IIIA	Category I

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# **Product: 11 - Animal Allergens, Dog Hair Canis spp.**

Recommended Scientific Name

Canis lupus familiaris

## **Manufacturers of this Product**

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

Hollister-Stier Labs, LLC - Spokane, WA (Lic. No. 1272, STN No. 103888)

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

## **Search Strategy**

PubMed - Dog hair allergy, dog epithelium allergy, dog dander allergy, dog dander, dog asthma, dog allergen, dog allergenic extracts, dog dander allergenic extracts, dog epithelium allergenic extract, dog skin prick test, dog hair skin prick test, dog epithelium skin prick test, dog allergy immunotherapy, poodle allergy, poodle skin prick test, poodle hair extract

Google – dog extract, "adverse events"; "dog hair" extract, "adverse events"; dog dander extract, "adverse events"; "dog dander" extract, "adverse events"; dog, "allergenic extract", "adverse events"; dog, "skin test", "adverse events"; dog, "immunotherapy", "adverse events"; similar searches with poodle

### **Nomenclature**

According to ITIS, there are six species of Canis. They are: C. adustus, C. aureus, C. latrans, C. lupus, C. mesomelas, and C. simensis. The scientific name of domestic dog is Canis lupus familiaris. The Canis genus is found in the Canidae family.

#### **Parent Product**

10 - Animal Allergens, Dog Epithelium Canis familiaris

#### **Related Products**

- 9 Animal Allergens, Dog Dander Canis spp.
- 11 Animal Allergens, Dog Hair Canis spp.
- 42 Animal Allergens, Poodle Hair

## **Published Data**

Dog allergens have been found in serum, dander, pelt, hair and saliva. Skin testing is associated with provocation testing (PMID: 6846924). The primary allergens are identified as Can f 1, Can f 2, Can f 3 and Can f 4. Dog allergens can be found in places where dogs have not been present in sufficient amounts to cause symptoms in sensitive patients (PMID: 15241352). Some cross-reactivity between dog and cat allergens and other epidermal allergens have been reported (PMID: 9003217). Studies do not show breed specific differences in allergens. However, differences in the concentration of allergen (Can f 1) present in different breeds have been shown (PMIDs 6230948, 15969688, 2457041).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
9_ J Allergy Clin Immunol 114 - 111.pdf	15241352	Arbes, Samuel Jr.	2004
9_ Ann Allergy 50-340.pdf	6846924	Vanto, T.	1983
9_ J Allergy Clin Immunol 99 - 100.pdf	9003217	Spitzauer, S.	1997
9_ J Allergy Clin Immunol 82 - 196.pdf	2457041	Lindgren	1988
9_ Allergy 39-133.pdf	6230948	Uhlin, T.	1984
11_ Allergy 60 - 1060.pdf	15969688	Ramadour, M.	2005

# Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category I	Category I
Therapy:	Category IIIA	Category I

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# Product: 12 - Animal Allergens, Duck Feathers Anus platyrhynchos

**Recommended Scientific Name** 

Anas platyrhynchos

## **Manufacturers of this Product**

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

Hollister-Stier Labs, LLC - Spokane, WA (Lic. No. 1272, STN No. 103888)

ALK-Abello Inc. - Port Washington, NY (Lic. No. 1256, STN No. 103753)

Allermed Laboratories, Inc. - San Diego, CA (Lic. No. 467, STN No. 102211)

Nelco Laboratories, Inc. - Deer Park, NY (Lic. No. 459, STN No. 102192)

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

## **Search Strategy**

PubMed and ISI – duck allergy, duck feather allergy, duck feather extract, duck feather skin test, duck feather immunotherapy; duck, asthma, duck feather fever

Google – duck allergy, duck feather allergy, duck feather, "adverse events"; duck feather extract, "adverse events"; "duck feather immunotherapy; duck feather immunotherapy "adverse events"; duck feather fever

#### **Nomenclature**

According to ITIS, the correct spelling is Anas platyrhynchos. The common name listed as mallard. Anas oustaleti is listed as a synonym. There are three subspecies of A. platyrhynchos listed: conboschas, diazi, and platyrhynchos. The Anas genus is found in the Anatinae subfamily and Anatidae family.

## **Parent Product**

12 - Animal Allergens, Duck Feathers Anus platyrhynchos

#### **Published Data**

Bird-egg syndrome, in which cross-reactive antigens to bird inhalable antigens and egg proteins, is reported in the literature. PMIDs 9048530, 1789403, and 11488669 reported testing bird-egg syndrome patients with mixed feather extracts (duck and chicken). The response to duck feathers specifically could not be determined.

PMID 9534914 reported 2 patients were SPT to duck, 12 to goose and 15 to hen feathers (out of 177). A nasal challenge with a feather extract was made in 20 cases, always with a negative result. A clinically significant feather allergy was found in one patient only in the study.

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
7_ Ann Allergy Asthma Immunol 78-213.pdf	9048530	Bauela ,B.A.	1997
7_ Allergy 46-614.pdf	1789403	Bausela, Anibarro	B. 1991
12_ Allergy 56-754.pdf	11488669	Quirce, S.	2001
13_ Allergy 53-159.pdf	9534914	Kilpio, K.	1998

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# Product: 13 - Animal Allergens, Feathers, mixed (chicken, duck, goose)

Recommended Scientific Name Ga

Gallus, (species to be specified)

#### **Manufacturers of this Product**

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

## Search Strategy

PubMed and ISI – mixed feather allergy, mixed feather extract, mixed feather skin test, mixed feather immunotherapy, feather mix allergy, feather mix extract, feather mix immunotherapy

Google – "feather mix", allergy, "feather mix", adverse events; feather mix extract; "feather mix extract", adverse events; "feather mix" immunotherapy; feather mix immunotherapy, "adverse events"

#### Nomenclature

Chicken: According to ITIS, there are four species within the Gallus genus. The species are G. gallus, G. lafayettii, G. sonneratii, and G. varius. G. gallus (red junglefowl) is believed to be the ancestor of the domestic fowl. The Gallus genus is found in the Phasianianae subfamily and Phasianidae family.

Duck: According to ITIS, common mallard duck is Anas platyrhynchos. Anas oustaleti is listed as a synonym. There are three subspecies of A. platyrhynchos listed: conboschas, diazi, and platyrhynchos. The Anas genus is found in the Anatinae subfamily and Anatidae family.

Goose: Geese genera are listed as Anser (Bean geese), Merganser (Greater mergansers), Chen (Snow geese), or Brent (Canada geese). There are seven species of Anser listed: albifrons, anser, brachyrhynchus, cygnoides, erythropus, fabalis, and indicus. The Anser genus is found in the Anserinae subfamily and Anatidae family.

## **Parent Product**

13 - Animal Allergens, Feathers, mixed (chicken, duck, goose)

#### Published Data

PMID 9534914 reported 2 patients with SPT positive to duck, 12 to goose and 15 to hen feathers (out of 177). A nasal challenge with a feather extract was made in 20 cases, always with a negative result. A clinically significant feather allergy was found in one patient only in the study.

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
13_ Allergy 53-159.pdf	9534914	Kilpio, K.	1998

# Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category II
Therapy:	Category IIIA	Category II

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# Product: 14 - Animal Allergens, Gerbil Epithelia Meriones unguiculatus

## **Manufacturers of this Product**

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

ALK-Abello Inc. - Port Washington, NY (Lic. No. 1256, STN No. 103753)

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

# **Search Strategy**

PubMed and ISI - gerbil allergy, gerbil hair allergy, gerbil allergens, gerbil hair extract, gerbil hair skin test, gerbil hair immunotherapy, gerbil dander allergy, gerbil epithelial allergy, gerbil epithelial extract, gerbil epithelial immunotherapy, meriones allergy, meriones extract, meriones skin test, meriones immunotherapy, gerbillus allergy, gerbillus skin test, gerbillus immunotherapy

Google – gerbil, "adverse events"; gerbil extract, "adverse events"; gerbil hair, "adverse events"; gerbil "allergenic extract", "adverse events"; gerbil immunotherapy, "adverse events"

## **Nomenclature**

According to ITIS, the scientific name, Meriones unguiculatus is correct. The common name is listed as 'Mongolian jird'. According to dictionary.com a jird is defined as a gerbil. The Meriones genus is found in the Gerbillinae subfamily and Muridae family.

# **Parent Product**

14 - Animal Allergens, Gerbil Epithelia Meriones unguiculatus

# **Published Data**

Mongolian gerbil (Meriones unguiculatus) commonly kept as a pet. Major allergens from the gerbil have not been identified. Four (4) case reports in literature demonstrate positive SPT and specific IgE (RAST) to gerbil hair extracts in patients with clinical symptoms upon gerbil exposure or gerbil bites (PMIDs 3995723 and 15324415). In 3 of the case reports (PMID: 3995723), the species of gerbil was not identified. There are no data on allergen cross-reactivity between 2 gerbil genera (Meriones sp, Gerbillus sp).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
14_ Clinical Allergy 15-163.pdf	3995723	McGivern, D.	1985
14_ J Eur Acad Dermatol Venereol 18-635.pdf	15324415	Trummer M., et al	2004

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# Product: 15 - Animal Allergens, Gerbil Hair Gerbillus spp.

Recommended Scientific Name Gerbillus, (species to be specified)

## **Manufacturers of this Product**

Hollister-Stier Labs, LLC - Spokane, WA (Lic. No. 1272, STN No. 103888) Nelco Laboratories, Inc. - Deer Park, NY (Lic. No. 459, STN No. 102192)

## **Search Strategy**

PubMed and ISI - gerbil allergy, gerbil hair allergy, gerbil allergens, gerbil hair extract, gerbil hair skin test, gerbil hair immunotherapy, gerbil dander allergy, gerbil epithelial allergy, gerbil epithelial extract, gerbil epithelial immunotherapy, meriones allergy, meriones extract, meriones skin test, meriones immunotherapy, gerbillus allergy, gerbillus skin test, gerbillus immunotherapy

Google – gerbil, "adverse events"; gerbil extract, "adverse events"; gerbil hair, "adverse events"; gerbil "allergenic extract", "adverse events"; gerbil immunotherapy, "adverse events"

#### **Nomenclature**

According to ITIS, there are approximately 60 species within the genus Gerbillus. The Gerbillus genus is found in the Gerbillinae subfamily and Muridae family.

#### Parent Product

15 - Animal Allergens, Gerbil Hair Gerbillus spp.

#### **Published Data**

Mongolian gerbil (Meriones unguiculatus) commonly kept as a pet. Major allergens from the gerbil have not been identified. Four (4) case reports in literature demonstrate positive SPT and specific IgE (RAST) to gerbil hair extracts in patients with clinical symptoms upon gerbil exposure or gerbil bites (PMIDs 3995723 and 15324415). In 3 of the case reports (PMID: 3995723), the species of gerbil was not identified. There are no data on allergen cross-reactivity between 2 gerbil genera (Meriones sp, Gerbillus sp).

No data was available on gerbillus allergy or cross-reactivity with meriones allergy.

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
14_ Clinical Allergy 15-163.pdf	3995723	McGivern, D.	1985
14_ J Eur Acad Dermatol Venereol 18-635.pdf	15324415	Trummer M., et al	2004

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# Product: 16 - Animal Allergens, Gerbil Hair Meriones spp.

Recommended Scientific Name Meriones, (species to be specified)

## **Manufacturers of this Product**

Hollister-Stier Labs, LLC - Spokane, WA (Lic. No. 1272, STN No. 103888) Nelco Laboratories, Inc. - Deer Park, NY (Lic. No. 459, STN No. 102192)

## **Search Strategy**

PubMed and ISI - gerbil allergy, gerbil hair allergy, gerbil allergens, gerbil hair extract, gerbil hair skin test, gerbil hair immunotherapy, gerbil dander allergy, gerbil epithelial allergy, gerbil epithelial extract, gerbil epithelial immunotherapy, meriones allergy, meriones extract, meriones skin test, meriones immunotherapy, gerbillus allergy, gerbillus skin test, gerbillus immunotherapy

Google – gerbil, "adverse events"; gerbil extract, "adverse events"; gerbil hair, "adverse events"; gerbil "allergenic extract", "adverse events"; gerbil immunotherapy, "adverse events"

#### Nomenclature

According to ITIS, there are 16 species within the Meriones genus. The Meriones genus is found in the Gerbillinae subfamily and Muridae family.

# **Parent Product**

16 - Animal Allergens, Gerbil Hair Meriones spp.

#### **Published Data**

Mongolian gerbil (Meriones unguiculatus) commonly kept as a pet. Major allergens from the gerbil have not been identified. Four (4) case reports in literature demonstrate positive SPT and specific IgE (RAST) to gerbil hair extracts in patients with clinical symptoms upon gerbil exposure or gerbil bites (PMIDs 3995723 and 15324415). In 3 of the case reports (PMID: 3995723), the species of gerbil was not identified. There are no data on allergen cross-reactivity between 2 gerbil genera (Meriones sp, Gerbillus sp).

14_ Clinical Allergy 15-163.pdf	3995723	McGivern, D.	1985
14_ J Eur Acad Dermatol Venereol 18-635.pdf	15324415	Trummer M., et al	2004

# Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 17 - Animal Allergens, Goat Dander Capra sp.**

**Recommended Scientific Name** 

Capra hircus

## **Manufacturers of this Product**

Allermed Laboratories, Inc. - San Diego, CA (Lic. No. 467, STN No. 102211) Nelco Laboratories, Inc. - Deer Park, NY (Lic. No. 459, STN No. 102192)

# **Search Strategy**

PubMed - goat dander allergy, goat hair allergy, goat hair extract, goat dander extract, goat epithelium allergy, allergy to goat, goat skin test, goat hair skin test, goat dander skin test, goat epithelium skin test, goat allergy immunotherapy

Google – "goat" extract, "adverse events"; "goat", "allergenic extract, "adverse events", goat hair extract, "adverse events"; goat dander extract, "adverse events"; goat epithelium extract, "adverse events"; goat hair "allergenic extract"; goat dander "allergenic extract"; "goat", "adverse events"

#### **Nomenclature**

Domesticated goats in North America, Asia, Europe, Oceania, South America and Southern Asia are classified as Capra hircus by ITIS. The Capra genus is found in the Caprinae subfamily and Bovidae family.

# **Parent Product**

17 - Animal Allergens, Goat Dander Capra sp.

## **Published Data**

No major allergens from goat have been identified. Four case reports of allergy and positive SPT to goat hair and/or dander were found in the literature (PMIDs 15811041 and 16680929). Three of the four case reports included bronchial or nasal challenge testing (PMID: 16680929). Three papers reported on the cross-reactivity of cattle hair and dander to goat dander (PMIDs 8630715, 7337202, 16680929).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
8_ Ann Allergy Asthma Immunol 76-423.pdf	8630715 N	Nahm, D.H.	1996
17_ Allergy 36-561.pdf	7337202 F	Prahl, P.	1981
17_ Contact Dermatitis 52-168.pdf	15811041 k	Krakowiak, A.	2005
17_ Ann Allergy Asthma Immunol 96-579.pdf	16680929 F	Ferrer	2006

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# Product: 18 - Animal Allergens, Goat Epithelia Capra hircus

## **Manufacturers of this Product**

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

ALK-Abello Inc. - Port Washington, NY (Lic. No. 1256, STN No. 103753)

#### **Search Strategy**

PubMed - goat dander allergy, goat hair allergy, goat hair extract, goat dander extract, goat epithelium allergy, allergy to goat, goat skin test, goat hair skin test, goat dander skin test, goat epithelium skin test, goat allergy immunotherapy

Google — "goat" extract, "adverse events"; "goat", "allergenic extract, "adverse events", goat hair extract, "adverse events"; goat dander extract, "adverse events"; goat epithelium extract, "adverse events"; goat hair "allergenic extract"; goat dander "allergenic extract"; goat epithelium "allergenic extract"; "goat", "adverse events"

### **Nomenclature**

Domesticated goats in North America, Asia, Europe, Oceania, South America and Southern Asia are classified as Capra hircus by ITIS. The Capra genus is found in the Caprinae subfamily and Bovidae family.

#### **Parent Product**

18 - Animal Allergens, Goat Epithelia Capra hircus

## **Published Data**

No major allergens from goat have been identified. Four case reports of allergy and positive SPT to goat hair and/or dander were found in the literature (PMIDs 15811041 and 16680929). Three of the four case reports included bronchial or nasal challenge testing (PMID: 16680929). Three papers reported on the cross-reactivity of cattle hair and dander to goat dander (PMIDs 8630715, 7337202, 16680929).

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# Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 19 - Animal Allergens, Goat Hair Capra hircus**

## **Manufacturers of this Product**

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

#### **Search Strategy**

PubMed - goat dander allergy, goat hair allergy, goat hair extract, goat dander extract, goat epithelium allergy, allergy to goat, goat skin test, goat hair skin test, goat dander skin test, goat epithelium skin test, goat allergy immunotherapy

Google — "goat" extract, "adverse events"; "goat", "allergenic extract, "adverse events", goat hair extract, "adverse events"; goat dander extract, "adverse events"; goat epithelium extract, "adverse events"; goat hair "allergenic extract"; goat dander "allergenic extract"; goat epithelium "allergenic extract"; "goat", "adverse events"

#### **Nomenclature**

Domesticated goats in North America, Asia, Europe, Oceania, South America and Southern Asia are classified as Capra hircus by ITIS. The Capra genus is found in the Caprinae subfamily and Bovidae family.

#### **Parent Product**

19 - Animal Allergens, Goat Hair Capra hircus

## **Published Data**

No major allergens from goat have been identified. Four case reports of allergy and positive SPT to goat hair and/or dander were found in the literature (PMIDs 15811041 and 16680929). Three of the four case reports included bronchial or nasal challenge testing (PMID: 16680929). Three papers reported on the cross-reactivity of cattle hair and dander to goat dander (PMIDs 8630715, 7337202, 16680929).

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# Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# Product: 20 - Animal Allergens, Goose Feathers Anser domesticus

Recommended Scientific Name

Anser anser

**Manufacturers of this Product** 

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

#### **Search Strategy**

PubMed and ISI – goose allergy, goose feather allergy, goose feather extract, goose feather skin test, goose feather immunotherapy, goose worker allergies, goose raising industry, Chen feather allergies, Chen feather extract, Chen feather skin prick test; Anser feather allergies, anser feather extract, anser feather skin prick test; anser feather immunotherapy (similar searches with merganser)

Google – goose feather allergy; goose feather, "adverse events"; "goose feather", "adverse events"; "goose feather, immunotherapy

## **Nomenclature**

No listing in ITIS species database for "Anser domesticus", this is an incorrect scientific name. On the internet there are several references to Anser anser domesticus or domestic goose. (http://www.cdc.gov/ncidod/eid/vol7no4/swayne.htm downloaded 12/15/2009) Geese genera are listed as Anser (Bean geese), Merganser (Greater mergansers), Chen (Snow geese), or Brent (Canada geese). There are seven species of Anser listed: albifrons, anser, brachyrhynchus, cygnoides, erythropus, fabalis, and indicus. The Anser genus is found in the Anserinae subfamily and Anatidae family.

#### **Parent Product**

20 - Animal Allergens, Goose Feathers Anser domesticus

#### **Published Data**

Therapy:

There were no articles in the literature specific to goose feather allergy. Bird-egg syndrome, in which cross-reactive antigens to bird inhalable antigens and egg proteins is reported in the literature. Cross-reactivity to antigens from different birds is reported in this syndrome, particularly parakeet, canary, and chicken. PMID 9534914 reported 2 patients with SPT positive to duck, 12 to goose and 15 to hen feathers (out of 177). A nasal challenge with a feather extract was made in 20 cases, always with a negative result. A clinically significant feather allergy was found in one patient only in the study.

Category I

<u>Docum</u>	<u>ients</u>	<u>Pub</u>	Med Number	<u>Author</u>	Year Published
13_ All	ergy 53-159.pdf		9534914	Kilpio, K.	1998
Panels:		Original Panel Recommendation	<u>Reclass</u>	ification Panel	Recommendation
	Diagnosis:	Category IIIA		Category	· [

Category IIIA

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# **Product: 21 - Animal Allergens, Goose Feathers Chen spp.**

Recommended Scientific Name Chen, (species to be specified)

# **Manufacturers of this Product**

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

Hollister-Stier Labs, LLC - Spokane, WA (Lic. No. 1272, STN No. 103888)

ALK-Abello Inc. - Port Washington, NY (Lic. No. 1256, STN No. 103753)

Allermed Laboratories, Inc. - San Diego, CA (Lic. No. 467, STN No. 102211)

Nelco Laboratories, Inc. - Deer Park, NY (Lic. No. 459, STN No. 102192)

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

## **Search Strategy**

PubMed and ISI – goose allergy, goose feather allergy, goose feather extract, goose feather skin test, goose feather immunotherapy, goose worker allergies, goose raising industry, Chen feather allergies, Chen feather extract, Chen feather skin prick test; Anser feather allergies, anser feather extract, anser feather skin prick test; anser feather immunotherapy (similar searches with merganser)

Google – goose feather allergy; goose feather, "adverse events"; "goose feather", "adverse events"; "goose feather, immunotherapy

## **Nomenclature**

According to ITIS, Geese genera are listed as Anser (Bean geese), Merganser (Greater mergansers), Chen (Snow geese), or Brent (Canada geese). There are three species of Chen listed: caerulescens, canagica, and rossii. The Chen genus is found in the Anserinae subfamily and Anatidae family.

#### **Parent Product**

21 - Animal Allergens, Goose Feathers Chen spp.

## **Published Data**

There were no articles in the literature specific to goose feather allergy. Bird-egg syndrome, in which cross-reactive antigens to bird inhalable antigens and egg proteins is reported in the literature. Cross-reactivity to antigens from different birds is reported in this syndrome, particularly parakeet, canary, and chicken. PMID 9534914 reported 2 patients with SPT positive to duck, 12 to goose and 15 to hen feathers (out of 177). A nasal challenge with a feather extract was made in 20 cases, always with a negative result. A clinically significant feather allergy was found in one patient only in the study.

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
13_ Allergy 53-159.pdf	9534914	Kilpio, K.	1998

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# Product: 22 - Animal Allergens, Guinea Pig Epithelia Cavis porcellus

Recommended Scientific Name

Cavia porcellus

**Manufacturers of this Product** 

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

ALK-Abello Inc. - Port Washington, NY (Lic. No. 1256, STN No. 103753)

# **Search Strategy**

PubMed and ISI – guinea pig allergy, allergy to guinea pigs, guinea pig dander allergy, guinea pig hair allergy, guinea pig skin prick test, guinea pig hair extract, guinea pig epidermal extract, guinea pig allergens, major allergens – guinea pigs, guinea pig immunotherapy, guinea pig extract immunotherapy; similar searches using "Cavia"

Google – guinea pig, "adverse events"; guinea pig extract, "adverse events"; guinea pig hair, "adverse events"; guinea pig immunotherapy, "adverse events"; guinea pig "allergenic extract", "adverse events"

## **Nomenclature**

According to ITIS, the correct spelling is Cavia porcellus. According to

http://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id=10141, the common name is guinea pig. The Cavia genus is found in the Caviinae subfamily and Caviidae family.

#### Parent Product

22 - Animal Allergens, Guinea Pig Epithelia Cavis porcellus

#### **Published Data**

Guinea pig allergy was reported in persons exposed to guinea pigs. At least two papers report on persons with rhinoconjunctivitis, asthma, and dermatitis with positive skin prick test results and positive specific IgE results using CAP system (PMIDs 4006174 and 16253140). The major allergen from guinea pigs is Cav p 1, a 20 kd protein that is a member of the lipocalin superfamily (PMID: 11972481). Cav p 1 is found in hair, dander, and urine extracts, with hair and dander reported as the most potent extracts (PMIDs 11972481 and 6721283). Little cross reactivity between Cav p 1 and other allergens found in literature. Cav p 2, another major allergen is reported to have a 69% sequence homology with cattle allergen Bos d 2 (PMID: 12823123).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
22_ Allergy 57-417.pdf	11972481	Fahlbusch, B.	2002
22_ Allergy 58-629.pdf	12823123	Fahlbusch, B.	2003
22_ Am Rev Respir Dis 129-844.pdf	6721283	Swanson, M.C.	1984
22_ Clin Allergy 15-241.pdf	4006174	Walls, A. G.	1985
22_ Clin Mol Allergy 3-14.pdf	16253140	Zacharisen, M.C.	2005

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 23 - Animal Allergens, Guinea Pig Hair Cavia porcellus**

## **Manufacturers of this Product**

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

Hollister-Stier Labs, LLC - Spokane, WA (Lic. No. 1272, STN No. 103888)

Allermed Laboratories, Inc. - San Diego, CA (Lic. No. 467, STN No. 102211)

Nelco Laboratories, Inc. - Deer Park, NY (Lic. No. 459, STN No. 102192)

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

#### **Search Strategy**

PubMed and ISI – guinea pig allergy, allergy to guinea pigs, guinea pig dander allergy, guinea pig hair allergy, guinea pig skin prick test, guinea pig hair extract, guinea pig epidermal extract, guinea pig allergens, major allergens – guinea pigs, guinea pig immunotherapy, guinea pig extract immunotherapy; similar searches using "Cavia"

Google – guinea pig, "adverse events"; guinea pig extract, "adverse events"; guinea pig hair, "adverse events"; guinea pig immunotherapy, "adverse events"; guinea pig "allergenic extract", "adverse events"

## **Nomenclature**

According to ITIS, the scientific name, Cavia procellus, is spelled correctly. According to http://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id=10141, the common name is guinea pig. The Cavia genus is found in the Caviinae subfamily and Caviidae family.

## **Parent Product**

23 - Animal Allergens, Guinea Pig Hair Cavia porcellus

# **Published Data**

Guinea pig allergy was reported in persons exposed to guinea pigs. At least two papers report on persons with rhinoconjunctivitis, asthma, and dermatitis with positive skin prick test results and positive specific IgE results using CAP system (PMIDs 4006174 and 16253140). The major allergen from guinea pigs is Cav p 1, a 20 kd protein that is a member of the lipocalin superfamily (PMID: 11972481). Cav p 1 is found in hair, dander, and urine extracts, with hair and dander reported as the most potent extracts (PMIDs 11972481 and 6721283). Little cross reactivity between Cav p 1 and other allergens found in literature. Cav p 2, another major allergen is reported to have a 69% sequence homology with cattle allergen Bos d 2 (PMID: 12823123).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
22_ Am Rev Respir Dis 129-844.pdf	6721283	Swanson, M.C.	1984
22_ Allergy 57-417.pdf	11972481	Fahlbusch, B.	2002
22_ Allergy 58-629.pdf	12823123	Fahlbusch, B.	2003
22_ Clin Allergy 15-241.pdf	4006174	Walls, A. G.	1985
22_ Clin Mol Allergy 3-14.pdf	16253140	Zacharisen, M.C.	2005

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 24 - Animal Allergens, Hamster Epithelia Mesocricetus auratus**

## **Manufacturers of this Product**

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

## **Search Strategy**

PubMed and ISI – hamster allergy, allergy to hamsters, hamster hair allergy, hamster allergens, hamster major allergens, hamster epithelium allergy, hamster dander allergy, hamster epithelial extract, hamster hair extract, hamster skin prick test, siberian hamster allergy, golden hamster allergy, hamster skin prick test, hamster immunotherapy, hamster bites, dwarf hamster allergy (similar searches by genus cricetus and mesocricetus)

Google – hamster, "adverse events"; hamster extract, "adverse events"; hamster hair, "adverse events"; hamster "allergenic extract", "adverse events"; hamster immunotherapy, "adverse events"; hamster

#### Nomenclature

According to ITIS, the scientific name, Mesocricetus auratus, is correct. The common name is listed as 'golden hamster'. The Mesocricetus genus is found in the Cricetinae subfamily and Muridae family.

#### Parent Product

24 - Animal Allergens, Hamster Epithelia Mesocricetus auratus

# **Published Data**

About 20–30 % of asthma patients show positive SPT to hamster allergens in Japan where they are popular pets. Common pet hamster types in Japan are Siberian or Dwarf hamsters (Phodopus sp) (PMID: 15552716). Studies have not demonstrated cross-reactivity between Siberian or Dwarf Hamsters and Common/European hamsters (Critecus critecus) or Golden/Syrian Hamsters (Mesocritcus auratus) (PMID: 11929420).

Anaphylaxis to hamster bites has also been reported in the literature (PMIDs 14510738 and 15248860). These patients can be SPT to hamster hair extracts. All reports found were for bites from Siberian or Dwarf hamsters and in each case the patients were SPT negative to Common, Golden, or European hamster extracts.

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
24_ Allergy 57-155.pdf	11929420	Berto, J.M.	2002
24_ Allergy 58-1081.pdf	14510738	Nitsuma, T.	2003
24_ Clin Exp Allergy 34-1122.pdf	15248860	Lim, D.L.	2004
24_ J Invest Allergol Clin Immunol 14-221.pdf	15552716	Niitsuma, T.	2004

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# Product: 25 - Animal Allergens, Hamster Epithelium Cricetus sp.

Recommended Scientific Name Cricetus cricetus

**Manufacturers of this Product** 

ALK-Abello Inc. - Port Washington, NY (Lic. No. 1256, STN No. 103753)

## **Search Strategy**

PubMed and ISI – hamster allergy, allergy to hamsters, hamster hair allergy, hamster allergens, hamster major allergens, hamster epithelium allergy, hamster dander allergy, hamster epithelial extract, hamster hair extract, hamster skin prick test, siberian hamster allergy, golden hamster allergy, hamster skin prick test, hamster immunotherapy, hamster bites, dwarf hamster allergy (similar searches by genus cricetus and mesocricetus)

Google – hamster, "adverse events"; hamster extract, "adverse events"; hamster hair, "adverse events"; hamster "allergenic extract", "adverse events"; hamster immunotherapy, "adverse events"; hamster

## **Nomenclature**

According to ITIS, only one species of Cricetus exists, C. cricetus. According to http://www.ncbi.nlm.nih.gov/Taxonomy/ (downloaded 12/15/2009), the common name of C. cricetus is 'black-bellied hamster'. The Cricetus genus is found in the Cricetinae subfamily and Muridae family.

#### **Parent Product**

25 - Animal Allergens, Hamster Epithelium Cricetus sp.

## **Published Data**

About 20–30 % of asthma patients show positive SPT to hamster allergens in Japan where they are popular pets. Common pet hamster types in Japan are Siberian or Dwarf hamsters (Phodopus sp) (PMID: 15552716). Studies have not demonstrated cross-reactivity between Siberian or Dwarf Hamsters and Common/European hamsters (Critecus critecus) or Golden/Syrian Hamsters (Mesocritcus auratus) (PMID: 11929420). Anaphylaxis to hamster bites has also been reported in the literature (PMIDs 14510738 and 15248860). These patients can be SPT to hamster hair extracts. All reports found were for bites from Siberian or Dwarf hamsters and in each case the patients were SPT negative to Common, Golden, or European hamster extracts.

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
24_ J Invest Allergol Clin Immunol 14-221.pdf	15552716	Niitsuma, T.	2004
24_ Allergy 57-155.pdf	11929420	Berto, J.M.	2002
24_ Allergy 58-1081.pdf	14510738	Nitsuma, T.	2003
24_ Clin Exp Allergy 34-1122.pdf	15248860	Lim, D.L.	2004

# Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation	
Diagnosis: Therapy:	Category IIIA Category IIIA	Category I Category I	

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# **Product: 26 - Animal Allergens, Hamster Hair and Epithelium Cricetus sp.**

**Recommended Scientific Name** 

Cricetus cricetus

**Manufacturers of this Product** 

Hollister-Stier Labs, LLC - Spokane, WA (Lic. No. 1272, STN No. 103888)

## **Search Strategy**

PubMed and ISI – hamster allergy, allergy to hamsters, hamster hair allergy, hamster allergens, hamster major allergens, hamster epithelium allergy, hamster dander allergy, hamster epithelial extract, hamster hair extract, hamster skin prick test, siberian hamster allergy, golden hamster allergy, hamster skin prick test, hamster immunotherapy, hamster bites, dwarf hamster allergy (similar searches by genus cricetus and mesocricetus)

Google – hamster, "adverse events"; hamster extract, "adverse events"; hamster hair, "adverse events"; hamster "allergenic extract", "adverse events"; hamster immunotherapy, "adverse events"; hamster

## **Nomenclature**

According to ITIS, only one species of Cricetus exists, C. cricetus. According to http://www.ncbi.nlm.nih.gov/Taxonomy/ (downloaded 12/15/2009), the common name of C. cricetus is 'black-bellied hamster'. The Cricetus genus is found in the Cricetinae subfamily and Muridae family.

### **Parent Product**

26 - Animal Allergens, Hamster Hair and Epithelium Cricetus sp.

#### **Published Data**

About 20–30 % of asthma patients show positive SPT to hamster allergens in Japan where they are popular pets. Common pet hamster types in Japan are Siberian or Dwarf hamsters (Phodopus sp) (PMID: 15552716). Studies have not demonstrated cross-reactivity between Siberian or Dwarf Hamsters and Common/European hamsters (Critecus critecus) or Golden/Syrian Hamsters (Mesocritcus auratus) (PMID: 11929420). Anaphylaxis to hamster bites has also been reported in the literature (PMIDs 14510738 and 15248860). These patients can be SPT to hamster hair extracts. All reports found were for bites from Siberian or Dwarf hamsters and in each case the patients were SPT negative to Common, Golden, or European hamster extracts.

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
24_ J Invest Allergol Clin Immunol 14-221.pdf	15552716	Niitsuma, T.	2004
24_ Allergy 57-155.pdf	11929420	Berto, J.M.	2002
24_ Allergy 58-1081.pdf	14510738	Nitsuma, T.	2003
24_ Clin Exp Allergy 34-1122.pdf	15248860	Lim, D.L.	2004

# Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# Product: 27 - Animal Allergens, Hamster Hair Cricetus sp.

**Recommended Scientific Name** 

Cricetus cricetus

## **Manufacturers of this Product**

Allermed Laboratories, Inc. - San Diego, CA (Lic. No. 467, STN No. 102211)

Nelco Laboratories, Inc. - Deer Park, NY (Lic. No. 459, STN No. 102192)

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

#### **Search Strategy**

PubMed and ISI – hamster allergy, allergy to hamsters, hamster hair allergy, hamster allergens, hamster major allergens, hamster epithelium allergy, hamster dander allergy, hamster epithelial extract, hamster hair extract, hamster skin prick test, siberian hamster allergy, golden hamster allergy, hamster skin prick test, hamster immunotherapy, hamster bites, dwarf hamster allergy (similar searches by genus cricetus and mesocricetus)

Google – hamster, "adverse events"; hamster extract, "adverse events"; hamster hair, "adverse events"; hamster "allergenic extract", "adverse events"; hamster immunotherapy, "adverse events"; hamster

# **Nomenclature**

According to ITIS, only one species of Cricetus exists, C. cricetus. According to http://www.ncbi.nlm.nih.gov/Taxonomy/ (downloaded 12/15/2009), the common name of C. cricetus is 'black-bellied hamster'. The Cricetus genus is found in the Cricetinae subfamily and Muridae family.

#### **Parent Product**

27 - Animal Allergens, Hamster Hair Cricetus sp.

## **Published Data**

About 20–30 % of asthma patients show positive SPT to hamster allergens in Japan where they are popular pets. Common pet hamster types in Japan are Siberian or Dwarf hamsters (Phodopus sp) (PMID: 15552716). Studies have not demonstrated cross-reactivity between Siberian or Dwarf Hamsters and Common/European hamsters (Critecus critecus) or Golden/Syrian Hamsters (Mesocritcus auratus) (PMID: 11929420). Anaphylaxis to hamster bites has also been reported in the literature (PMIDs 14510738 and 15248860). These patients can be SPT to hamster hair extracts. All reports found were for bites from Siberian or Dwarf hamsters and in each case the patients were SPT negative to Common, Golden, or European hamster extracts

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
24_ J Invest Allergol Clin Immunol 14-221.pdf	15552716	Niitsuma, T.	2004
24_ Allergy 57-155.pdf	11929420	Berto, J.M.	2002
24_ Allergy 58-1081.pdf	14510738	Nitsuma, T.	2003
24_ Clin Exp Allergy 34-1122.pdf	15248860	Lim, D.L.	2004

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# Product: 28 - Animal Allergens, Hog Dander Sus scrofa

Pig

Recommended Common Name

## **Manufacturers of this Product**

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

Allermed Laboratories, Inc. - San Diego, CA (Lic. No. 467, STN No. 102211)

Nelco Laboratories, Inc. - Deer Park, NY (Lic. No. 459, STN No. 102192)

#### Search Strategy

PubMed – pig hair allergy, pig dander allergy, swine hair allergy, swine dander allergy, swine epithelium allergy, pig farmers allergy, swine farmer allergy, swine worker allergy, swine workers respiratory, pig hair skin test, hog skin prick test, pig skin prick test, swine allergens, pig allergens, hog allergens

Google – swine extract, "adverse events"; swine hair extract, "adverse events"; swine hair "allergenic extract", "adverse events"; swine "allergenic extract", "adverse events"; pig "allergenic extract", "adverse events"; hog "allergenic extract", "adverse events"; hog hair, "skin prick test"; hog dander, "adverse event"; hog epithelium, "adverse event"; hog epithelium, "allergenic extract"; hog dander, "allergenic extract"; hog dander, "immunotherapy"; hog hair, "immunotherapy"

### **Nomenclature**

According to ITIS, the scientific name, Sus scrofa, is correct. The common names are listed as pig and wild boar. According to dictionary.com, a hog is a swine or pig that weights more than 120 pounds. The Sus genus is found in the Suinae subfamily and Suidae family.

# **Parent Product**

28 - Animal Allergens, Hog Dander Sus scrofa

#### **Published Data**

Literature reports that pig farming is a risk factor for development of asthma-like respiratory symptoms (PMIDs 1925439, 11401073). Pig exposure is usually in intensive swine confinement facilities that generate very large amounts of dust that may contain feed dust, mites, swine proteins, bacteria, fungal spores, and endotoxin. Some papers showed pig farmers were at highest risk for development of airway diseases/symptoms, while others showed either a lower prevalence of asthma among pig farmers or a protective effect to asthma for those raised on a farm. Correlation between positive SPT and respiratory symptoms or disease not found in most studies (PMIDs 11153036, 1769359, 15459151, 1925439, 11929489); however, see PMID 9098768 for serum and basophil-linked specific IgE data in a 8 asthmatic farmers.

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
28_ An Agric Environ Med 7-85.pdf	11153036	Iversen, M.	2000
28_ Environ Res 56-120.pdf	1769359	Zuskin, E.	1991
28_ Eur Respir J 24-698.pdf	15459151	Dosman, J.A.	2004
30_ Eur Respir J 17-747.pdf	11401073	Radon, K.	2001
28_ Inflamm Res 46-S65.pdf	9098768	Larsen, F.O.	1997
30_ Clin Exp Allergy 32-247.pdf	11929489	Portengen, L.	2002
28_ Scand J Work Environ Health 17-269.pdf	1925439	Courmier, Y.	1991

# Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation	
Diagnosis:	Category IIIA	Category I	
Therapy:	Category IIIA	Category I	

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# **Product: 29 - Animal Allergens, Hog Epithelia Sus scrofa**

Recommended Common Name Pig

#### **Manufacturers of this Product**

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

ALK-Abello Inc. - Port Washington, NY (Lic. No. 1256, STN No. 103753)

## **Search Strategy**

PubMed – pig hair allergy, pig dander allergy, swine hair allergy, swine dander allergy, swine epithelium allergy, pig farmers allergy, swine farmer allergy, swine worker allergy, swine workers respiratory, pig hair skin test, hog skin prick test, pig skin prick test, swine allergens, pig allergens, hog allergens

Google – swine extract, "adverse events"; swine hair extract, "adverse events"; swine hair "allergenic extract", "adverse events"; swine "allergenic extract", "adverse events"; pig "allergenic extract", "adverse events"; hog "allergenic extract", "adverse events"; hog "allergenic extract", "adverse events"; hog dander, "adverse events"; hog dander, "adverse event"; hog epithelium, "adverse event"; hog dander, "allergenic extract"; hog dander, "allergenic extract"; hog dander, "immunotherapy"; hog hair, "immunotherapy"

## **Nomenclature**

According to ITIS, the scientific name, Sus scrofa, is correct. The common names are listed as pig and wild boar. According to dictionary.com, a hog is a swine or pig that weights more than 120 pounds. The Sus genus is found in the Suinae subfamily and Suidae family.

### **Parent Product**

29 - Animal Allergens, Hog Epithelia Sus scrofa

## **Published Data**

Literature reports that pig farming is a risk factor for development of asthma-like respiratory symptoms (PMIDs 1925439, 11401073). Pig exposure is usually in intensive swine confinement facilities that generate very large amounts of dust that may contain feed dust, mites, swine proteins, bacteria, fungal spores, and endotoxin. Some papers showed pig farmers were at highest risk for development of airway diseases/symptoms, while others showed either a lower prevalence of asthma among pig farmers or a protective effect to asthma for those raised on a farm. Correlation between positive SPT and respiratory symptoms or disease not found in most studies (PMIDs 11153036, 1769359, 15459151, 1925439, 11929489); however, see PMID 9098768 for serum and basophil-linked specific IgE data in a 8 asthmatic farmers.

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
28_ An Agric Environ Med 7-85.pdf	11153036	Iversen, M.	2000
28_ Environ Res 56-120.pdf	1769359	Zuskin, E.	1991
28_ Eur Respir J 24-698.pdf	15459151	Dosman, J.A.	2004
30_ Eur Respir J 17-747.pdf	11401073	Radon, K.	2001
30_ Inflamm Res 46-S65.pdf	9098768	Larsen, F.O.	1997
29_ Clin Exp Allergy 32-247.pdf	11929489	Portengen, L.	2002
29_ Scand J Work Environ Health 17-269.pdf	1925439	Courmier, Y.	1991

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# Product: 30 - Animal Allergens, Hog Hair Sus scrofa

Recommended Common Name Pig

## **Manufacturers of this Product**

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

# **Search Strategy**

PubMed – pig hair allergy, pig dander allergy, swine hair allergy, swine dander allergy, swine epithelium allergy, pig farmers allergy, swine farmer allergy, swine worker allergy, swine workers respiratory, pig hair skin test, hog skin prick test, pig skin prick test, swine allergens, pig allergens, hog allergens

Google – swine extract, "adverse events"; swine hair extract, "adverse events"; swine hair "allergenic extract", "adverse events"; swine "allergenic extract", "adverse events"; pig "allergenic extract", "adverse events"; hog "allergenic extract", "adverse events"; hog "allergenic extract", "adverse events"; hog dander, "adverse events"; hog dander, "adverse event"; hog epithelium, "adverse event"; hog dander, "allergenic extract"; hog dander, "allergenic extract"; hog dander, "immunotherapy"; hog hair, "immunotherapy"

## **Nomenclature**

According to ITIS, the scientific name, Sus scrofa, is correct. The common names are listed as pig and wild boar. According to dictionary.com, a hog is a swine or pig that weights more than 120 pounds. The Sus genus is found in the Suinae subfamily and Suidae family.

## **Parent Product**

30 - Animal Allergens, Hog Hair Sus scrofa

## **Published Data**

Literature reports that pig farming is a risk factor for development of asthma-like respiratory symptoms (PMIDs 1925439, 11401073). Pig exposure is usually in intensive swine confinement facilities that generate very large amounts of dust that may contain feed dust, mites, swine proteins, bacteria, fungal spores, and endotoxin. Some papers showed pig farmers were at highest risk for development of airway diseases/symptoms, while others showed either a lower prevalence of asthma among pig farmers or a protective effect to asthma for those raised on a farm. Correlation between positive SPT and respiratory symptoms or disease not found in most studies (PMIDs 11153036, 1769359, 15459151, 1925439, 11929489); however, see PMID 9098768 for serum and basophil-linked specific IgE data in a 8 asthmatic farmers.

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
28_ An Agric Environ Med 7-85.pdf	11153036	Iversen, M.	2000
28_ Environ Res 56-120.pdf	1769359	Zuskin, E.	1991
30_ Eur Respir J 24-698.pdf	15459151	Dosman, J.A.	2004
30_ Eur Respir J 17-747.pdf	11401073	Radon, K.	2001
30_ Inflamm Res 46-S65.pdf	9098768	Larsen, F.O.	1997
30_ Clin Exp Allergy 32-247.pdf	11929489	Portengen, L.	2002
28_ Scand J Work Environ Health 17-269.pdf	1925439	Courmier, Y.	1991

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 31 - Animal Allergens, Horse Dander Equus caballus**

## **Manufacturers of this Product**

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

Hollister-Stier Labs, LLC - Spokane, WA (Lic. No. 1272, STN No. 103888)

ALK-Abello Inc. - Port Washington, NY (Lic. No. 1256, STN No. 103753)

Allermed Laboratories, Inc. - San Diego, CA (Lic. No. 467, STN No. 102211)

Nelco Laboratories, Inc. - Deer Park, NY (Lic. No. 459, STN No. 102192)

#### **Search Strategy**

PubMed – allergy to horses, horse hair allergy, horse dander allergy, horse epithelium allergy, horse dander extract, horse hair extract, horse skin prick test, horse hair skin test, horse allergenic extract

Google – horse, "adverse events"; horse hair, "adverse events"; horse hair extract, "adverse events"; horse, "allergenic extract", "adverse events"; "horse hair", skin test;

"horse hair", skin prick test; "horse hair", "allergenic extract"; "horse dander", "allergenic extract"; "horse dander", "allergenic extract"; "horse dander", "immunotherapy", "horse hair", "immunotherapy"

# **Nomenclature**

According to ITIS and other sources, all domesticated horses are Equus caballus. The scientific name of Equus caballus, is correct. The common name of horse is correct. The Equus genus is found in the Equidae family.

## **Parent Product**

31 - Animal Allergens, Horse Dander Equus caballus

# **Published Data**

There were multiple reports of allergy to horses and correlating SPT positivity in the literature. Skin prick testing was generally performed with horse hair or dander (PMIDs 12190654, 10915137, 16453968).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
31_ Clin Exp Allergy 32-1170.pdf	12190654	Tutluoglu, B.	2002
31_ BMJ 321-286.pdf	10915137	Roberts, G.	2000
31_ Allerg Immunol 37-350.pdf	16453968	Liccardi, G.	2005
28_ Scand J Work Environ Health 17-269.pdf	1925439	Courmier, Y.	1991
28_ Eur Respir J 24-698.pdf	15459151	Dosman, J.A.	2004

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category I	Category I
Therapy:	Category IIIA	Category I

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# **Product: 32 - Animal Allergens, Horse Epithelia Equus caballus**

## **Manufacturers of this Product**

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

# **Search Strategy**

PubMed – allergy to horses, horse hair allergy, horse dander allergy, horse epithelium allergy, horse dander extract, horse hair extract, horse skin prick test, horse hair skin test, horse allergenic extract

Google – horse, "adverse events"; horse hair, "adverse events"; horse hair extract, "adverse events"; horse, "allergenic extract", "adverse events"; "horse hair", skin test;

"horse hair", skin prick test; "horse hair", "allergenic extract"; "horse dander", "allergenic extract"; "horse dander", "allergenic extract"; "horse dander", "immunotherapy", "horse hair", "immunotherapy"

#### Nomenclature

According to ITIS and other sources, all domesticated horses are Equus caballus. The scientific name of Equus caballus, is correct. The common name of horse is correct. The Equus genus is found in the Equidae family.

#### Parent Product

32 - Animal Allergens, Horse Epithelia Equus caballus

## **Published Data**

There were multiple reports of allergy to horses and correlating SPT positivity in the literature. Skin prick testing was generally performed with horse hair or dander (PMIDs 12190654, 10915137, 16453968).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
31_ Clin Exp Allergy 32-1170.pdf	12190654	Tutluoglu, B.	2002
31_ BMJ 321-286.pdf	10915137	Roberts, G.	2000
31_ Allerg Immunol 37-350.pdf	16453968	Liccardi, G.	2005
28_ Scand J Work Environ Health 17-269.pdf	1925439	Courmier, Y.	1991
28_ Eur Respir J 24-698.pdf	15459151	Dosman, J.A.	2004

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	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category I	Category I
Therapy:	Category IIIA	Category I

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# **Product: 33 - Animal Allergens, Horse Hair Equus caballus**

## **Manufacturers of this Product**

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

Hollister-Stier Labs, LLC - Spokane, WA (Lic. No. 1272, STN No. 103888)

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

# **Search Strategy**

PubMed – allergy to horses, horse hair allergy, horse dander allergy, horse epithelium allergy, horse dander extract, horse hair extract, horse skin prick test, horse hair skin test, horse allergenic extract

Google – horse, "adverse events"; horse hair, "adverse events"; horse hair extract, "adverse events"; horse, "allergenic extract", "adverse events"; "horse hair", skin test;

"horse hair", skin prick test; "horse hair", "allergenic extract"; "horse dander", "allergenic extract"; "horse dander", "allergenic extract"; "horse dander", "immunotherapy", "horse hair", "immunotherapy"

## **Nomenclature**

According to ITIS and other sources, all domesticated horses are Equus caballus. The scientific name of Equus caballus, is correct. The common name of horse is correct. The Equus genus is found in the Equidae family.

#### **Parent Product**

33 - Animal Allergens, Horse Hair Equus caballus

#### **Published Data**

There were multiple reports of allergy to horses and correlating SPT positivity in the literature. Skin prick testing was generally performed with horse hair or dander (PMIDs 12190654, 10915137, 16453968).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
31_ Clin Exp Allergy 32-1170.pdf	12190654	Tutluoglu, B.	2002
31_ BMJ 321-286.pdf	10915137	Roberts, G.	2000
31_ Allerg Immunol 37-350.pdf	16453968	Liccardi, G.	2005
28_ Eur Respir J 24-698.pdf	15459151	Dosman, J.A.	2004
28_ Scand J Work Environ Health 17-269.pdf	1925439	Courmier, Y.	1991

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category I	Category I
Therapy:	Category IIIA	Category I

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# **Product: 34 - Animal Allergens, Monkey Dander, Rhesus**

Recommended Common Name Rhesus monkey
Recommended Scientific Name Macaca mulatta

**Manufacturers of this Product** 

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

# **Search Strategy**

PubMed – "monkey dander", monkey dander allergy, monkey dander skin prick test, monkey dander allergenic extract, "monkey hair", monkey hair allergy, monkey hair skin prick test, monkey hair allergenic extract, "rhesus" "allergy", rhesus allergy, rhesus skin prick test, primate worker allergy, "primate" "allergy"

Google – monkey, "adverse events"; monkey dander, "adverse events"; monkey dander extract, "adverse events"; monkey dander, "allergenic extract", "adverse events"; "monkey dander", skin test; "monkey dander", skin prick test; "monkey dander", "allergenic extract"; "monkey dander", "immunotherapy". Similar searches with monkey hair and rhesus. Searches on macaque diseases transmitted to humans.

#### **Nomenclature**

According to ITIS, the product's scientific name - listed as Rhesus - is not a correct. "Rhesus" is a common name (rhesus macaque or rhesus monkey) for Macaca mulatta. The Macaca genus is found in the Ceropithecinae subfamily and Cercopithecidae family.

#### **Parent Product**

34 - Animal Allergens, Monkey Dander, Rhesus

#### **Published Data**

Allergy to monkeys is rarely reported in the literature. 1 paper reported on asthma in 2 patients upon exposure to cotton top tamarin monkey, with positive SPT (PMID: 3968337). Another paper reported on asthma, rhinitis, and conjunctivitis upon exposure to pet macaque monkey (1 patient), serum IgE positive by ELISA (PMID: 15521378). None was specified as Macaca mulatta.

Multiple sources report on transmission of pathogenic and potentially fatal diseases between non-human primates and humans (PMIDs 19282815, 20510749, 19485797).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
34_ Ann Allergy Asthma Immunol 93-402.pdf	15521378	Passer	2004
34_ J Allergy Clin Immunol 75-268.pdf	3968337	Petry	1985
34_ MMWR 58-229.pdf	19282815		0
34_ Vaccine 285-B78.pdf	20510749		0
34_ Exp Rev 7-569.pdf	19485797		0

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 35 - Animal Allergens, Monkey Hair, Rhesus**

Recommended Common Name Rhesus monkey
Recommended Scientific Name Macaca mulatta

**Manufacturers of this Product** 

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

# **Search Strategy**

PubMed – "monkey dander", monkey dander allergy, monkey dander skin prick test, monkey dander allergenic extract, "monkey hair", monkey hair allergy, monkey hair skin prick test, monkey hair allergenic extract, "rhesus" "allergy", rhesus allergy, rhesus skin prick test, primate worker allergy, "primate" "allergy"

Google – monkey, "adverse events"; monkey dander, "adverse events"; monkey dander extract, "adverse events"; monkey dander, "allergenic extract", "adverse events"; "monkey dander", skin test; "monkey dander", skin prick test; "monkey dander", "allergenic extract"; "monkey dander", "immunotherapy". Similar searches with monkey hair and rhesus.

#### Nomenclature

According to ITIS, the product's scientific name - listed as Rhesus - is not a correct. "Rhesus" is a common name (rhesus macaque or rhesus monkey) for Macaca mulatta. The Macaca genus is found in the Ceropithecinae subfamily and Cercopithecidae family.

## **Parent Product**

35 - Animal Allergens, Monkey Hair, Rhesus

#### **Published Data**

Allergy to monkeys is rarely reported in the literature. 1 paper reported on asthma in 2 patients upon exposure to cotton top tamarin monkey, with positive SPT (PMID: 3968337). Another paper reported on asthma, rhinitis, and conjunctivitis upon exposure to pet macaque monkey (1 patient), serum IgE positive by ELISA (PMID: 15521378). None was specified as Macaca mulatta.

Multiple sources report on transmission of pathogenic and potentially fatal diseases between non-human primates and humans (PMIDs 19282815, 20510749, 19485797).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published	
34_ Ann Allergy Asthma Immunol 93-402.pdf	15521378	Passer	2004	
34_ J Allergy Clin Immunol 75-268.pdf	3968337	Petry	1985	
34_ MMWR 58-229.pdf	19282815		0	
34_ Vaccine 285-B78.pdf	20510749		0	
34_ Exp Rev 7-569.pdf	19485797		0	

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 36 - Animal Allergens, Mouse Epithelia Mus musculus**

## **Manufacturers of this Product**

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

ALK-Abello Inc. - Port Washington, NY (Lic. No. 1256, STN No. 103753)

#### **Search Strategy**

PubMed and ISI – mouse allergy, allergy to mice, mouse dander allergy, mouse hair allergy, mouse skin prick test, mouse hair skin prick test, mouse hair extract, mouse epidermal extracts, mouse epidermal skin prick test, mouse allergy immunotherapy, Mus m 1, Mus m 2, similar searches using "Mus musculus", mouse urine and mouse albumin

Google – mouse hair, "adverse events"; mouse hair extract, "adverse events"; "mouse hair", "adverse events"; mouse hair, "allergenic extract", "adverse events"; mouse hair immunotherapy, "adverse events"; mouse hair "allergenic extract"

### **Nomenclature**

According to ITIS, the scientific name, Mus musculus, is correct. The common name, house mouse, is correct. The Mus genus is found in the Murinae subfamily and Muridae family.

#### Parent Product

36 - Animal Allergens, Mouse Epithelia Mus musculus

#### **Published Data**

Allergy to mice in laboratory workers is documented in the literature (PMIDs 15328678, 7288048, 7076993). Exposure to mouse allergen is also prevalent in inner-city homes and is associated with asthma (PMID: 15131574). Allergy to mice is largely attributed to the mouse urinary protein complex (Mus m 1), which is highly allergenic for mouse-allergic individuals. Mus m 1 is excreted by the liver and secretory glands, and can be found in mouse urine, serum, pelt, and in dust. Mus m 1 is present in male mouse urine in four times greater amounts than female mouse urine. Another mouse allergen, Ag3 is a glycoprotein found in mouse dander and hair. It is localized in the hair follicles, and coats the hair and the skin (PMID: 15042921). Skin testing with mouse hair and epithelia extracts is diagnostic (PMIDs 15131574, 7288048, 15328678).

37_ J Allergy Clin Immunol 68-310.pdf	7288048	Cohumacher M I	
		Schumacher, M.J.	1981
37_ Ann Allergy Asthma Immunol 93-171.pdf	15328678	Matsui, E.C.	2004
37_ J Allergy Clin Immunol 113-910.pdf	15131574	Matsui, E.C.	2004
37_ J Allergy Clin Immunol 69-522.pdf	7076993	Twiggs, J.T.	1982
37_ Clin Allergy and Immunol 18-297.pdf	15042921	Viartanen, T.	2004

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 37 - Animal Allergens, Mouse Hair Mus musculus**

### **Manufacturers of this Product**

Hollister-Stier Labs, LLC - Spokane, WA (Lic. No. 1272, STN No. 103888)

Allermed Laboratories, Inc. - San Diego, CA (Lic. No. 467, STN No. 102211)

Nelco Laboratories, Inc. - Deer Park, NY (Lic. No. 459, STN No. 102192)

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

## **Search Strategy**

PubMed and ISI – mouse allergy, allergy to mice, mouse dander allergy, mouse hair allergy, mouse skin prick test, mouse hair skin prick test, mouse hair extract, mouse epidermal extracts, mouse epidermal skin prick test, mouse allergy immunotherapy, Mus m 1, Mus m 2, similar searches using "Mus musculus", mouse urine and mouse albumin

Google – mouse hair, "adverse events"; mouse hair extract, "adverse events"; "mouse hair", "adverse events"; mouse hair, "adverse events"; mouse hair immunotherapy, "adverse events"; mouse hair "allergenic extract"

#### **Nomenclature**

According to ITIS, the scientific name, Mus musculus, is correct. The common name, house mouse, is correct. The Mus genus is found in the Murinae subfamily and Muridae family.

## **Parent Product**

37 - Animal Allergens, Mouse Hair Mus musculus

#### **Published Data**

Allergy to mice in laboratory workers is documented in the literature (PMIDs 15328678, 7288048, 7076993). Exposure to mouse allergen is also prevalent in inner-city homes and is associated with asthma (PMID: 15131574). Allergy to mice is largely attributed to the mouse urinary protein complex (Mus m 1), which is highly allergenic for mouse-allergic individuals. Mus m 1 is excreted by the liver and secretory glands, and can be found in mouse urine, serum, pelt, and in dust. Mus m 1 is present in male mouse urine in four times greater amounts than female mouse urine. Another mouse allergen, Ag3 is a glycoprotein found in mouse dander and hair. It is localized in the hair follicles, and coats the hair and the skin (PMID: 15042921). Skin testing with mouse hair and epithelia extracts is diagnostic (PMIDs 15131574, 7288048, 15328678).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
37_ Ann Allergy Asthma Immunol 93-171.pdf	15328678	Matsui, E.C.	2004
37_ Clin Allergy and Immunol 18-297.pdf	15042921	Viartanen, T.	2004
37_ J Allergy Clin Immunol 113-910.pdf	15131574	Matsui, E.C.	2004
37_ J Allergy Clin Immunol 68-310.pdf	7288048	Schumacher, M.J.	. 1981
37_ J Allergy Clin Immunol 69-522.pdf	7076993	Twiggs, J.T.	1982

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 38 - Animal Allergens, Parakeet Feathers Melopsittacus undulatus**

Recommended Common Name Budgerigar Feathers

### **Manufacturers of this Product**

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

## Search Strategy

PubMed– parakeet allergy, parakeet skin test, parakeet immunotherapy, parakeet feather allergy, budgerigar skin test, budgerigar immunotherapy, budgerigar feather allergy Google- Budgerigar feather, "adverse event"; budgerigar extract, "adverse event"; budgerigar immunotherapy, budgerigar immunotherapy, budgerigar immunotherapy, "adverse event" (identical set of search terms for parakeet)

## **Nomenclature**

According to ITIS, the scientific name is Melopsittacus undulatus. Common name is listed as Budgerigar. Several websites indicates that another common name for Budgerigar is parakeet. The scientific name is correct and current. The common name needs to be updated. The Melopsittacus genus is found in the Psittacinae subfamily and Psittacidae family.

#### **Parent Product**

38 - Animal Allergens, Parakeet Feathers Melopsittacus undulatus

## **Published Data**

Literature reports on asthma or rhinitis to bird feathers, serum, or droppings (PMIDs 2449301, 3192303, 1789403), and bird-egg syndrome (PMIDs 3192303, 1789403), in which cross-reactive antigens to bird inhalable antigens and egg proteins. Several papers on allergies to parakeet (budgerigar) feathers present, including case-reports, in-vitro studies (PMIDs 3192303, 2410373, 8074264), bird egg syndrome, and cross-reactivity with parrot and canary feathers (PMID: 2410373).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
38_ Clin Allergy 17(6)-515.pdf	2449301	Van Wijk, G.R.	1987
2_ Allergy 49-448.pdf	8074264	Tauer-Reich, I.	1994
2_ Int Arch Allergy Appl Immunol 77-433.pdf	2410373	van Tooreneberge	n, A 1985
2_ Int Arch Allergy Apppl Immunol 87-143.pdf	3192303	Mandallaz, M.M.	1988
38_ Allergy 46-614.pdf	1789403	Bausela, Anibarro	B. 1991

## Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# Product: 39 - Animal Allergens, Parakeet Feathers Psittacidae

**Recommended Scientific Name** 

Melopsittacus undulatus

**Manufacturers of this Product** 

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

## **Search Strategy**

PubMed and ISI – parakeet allergy, parakeet skin test, parakeet immunotherapy, parakeet feather allergy, budgerigar skin test, budgerigar immunotherapy, budgerigar feather allergy Google - Budgerigar feather, "adverse event"; budgerigar extract, "adverse event"; budgerigar immunotherapy, budgerigar immunotherapy, budgerigar immunotherapy, "identical set of search terms for parakeet)

#### **Nomenclature**

"Psittacidae" is the family name. This family includes parrots and 300 other species of birds. Genus and species are not specified. The scientific name for budgerigar is Melopsittacus undulatus, for which this literature review was performed. The Melopsittacus genus is found in the Psittacinae subfamily and Psittacidae family.

## **Parent Product**

39 - Animal Allergens, Parakeet Feathers Psittacidae

#### **Published Data**

Literature reports on asthma or rhinitis to bird feathers, serum, or droppings (PMIDs 2449301, 3192303, 1789403), and bird-egg syndrome (PMIDs 3192303, 1789403), in which cross-reactive antigens to bird inhalable antigens and egg proteins. Several papers on allergies to parakeet (budgerigar) feathers present, including case-reports, in-vitro studies (PMIDs 3192303, 2410373, 8074264), bird egg syndrome, and cross-reactivity with parrot and canary feathers (PMID: 2410373).

<u>Documents</u>	PubMed Number	<u>Author</u>	<u>/ear Published</u>
2_ Int Arch Allergy Apppl Immunol 87-143.pdf	3192303	Mandallaz, M.M.	1988
2_ Int Arch Allergy Appl Immunol 77-433.pdf	2410373	van Tooreneberger	n, A 1985
2_ Allergy 49-448.pdf	8074264	Tauer-Reich, I.	1994
38_ Clin Allergy 17(6)-515.pdf	2449301	Van Wijk, G.R.	1987
39_ Allergy 46-614.pdf	1789403	Bausela, Anibarro E	3. 1991

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# Product: 40 - Animal Allergens, Pheasant Feathers Phasianidae sp.

Recommended Scientific Name Phasianidae, (species to be specified)

**Manufacturers of this Product** 

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

#### **Search Strategy**

PubMed and ISI - pheasant allergy, pheasant feather allergy, pheasant feather skin test, pheasant immunotherapy "pheasant extract adverse event", "pheasant adverse event", pheasant immunotherapy; pheasant feather, "adverse event" Google: phasianidae allergy, phasianidae allergen, phasianidae allergen adverse, phasianidae allergy adverse, the same search performed for pheasant feathers

## **Nomenclature**

According to ITIS, Phasianidae is the family name. No genus and species were identified for this product. Common names of this family are grouse, partridge, phesants, quail, and turkeys. Four subfamilies are listed: Meleagridinae (turkey), Perdicinae (partridge), Phasianinae (pheasant), and Tetraoninae (grouse). Within the subfamily of pheasants, Phasianinae, there are 16 genera.

#### **Parent Product**

40 - Animal Allergens, Pheasant Feathers Phasianidae sp.

## **Published Data**

Only one case-control study (PMID: 2715857) comparing pheasant handlers to controls could be found. While handlers had significantly more respiratory symptoms than controls and symptoms improved over time away from farm, cases were not skin tested, no in-vitro studies were performed, and the pulmonary functions of the handlers were normal. Authors assumed reactions were irritant verse asthma. In PMID 407816, pheasant serum and dropping extracts were used, not feathers. These too were non-diagnostic by skin testing.

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
40_ J Occup Med 31(5)-473.pdf	2715857	Goldstein, M.D.	1989
40_ Ann Allergy 39(1)-40.pdf	407816		0

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	none	none
Therapy:	none	none

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# Product: 41 - Animal Allergens, Pigeon Feathers Columba

Recommended Scientific Name Columba, (species to be specified)

**Manufacturers of this Product** 

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

## **Search Strategy**

PubMed and ISI – pigeon allergy, pigeon feather allergy, pigeon feather extracts, pigeon feather skin test, pigeon feather immunotherapy, rhinitis, pigeon exposure; asthma, pigeon exposure

Google – "pigeon feather", allergy; pigeon feather, "adverse event"; pigeon feather extract "adverse event"; Pigeon feather "immunotherapy; "pigeon feather" immunotherapy

## **Nomenclature**

According to ITIS, there are over 30 species within the Columba genus. The common name of this genus is pigeon. Aplopelia is listed as a synonym for this genus. The Columba genus is found in the Columbinae subfamily and Columbidae family.

#### **Parent Product**

41 - Animal Allergens, Pigeon Feathers Columba

### **Published Data**

Pulmonary hypersensitivity to various avian antigens is well-documented in the literature. Precipitating IgG antibodies can be found against pigeon serum, dropping, and bloom (waxy coating on feathers) extracts in persons with this condition. However, skin testing not generally considered useful for diagnosis of this disease, is not an approved indication, and most papers refer to use of dropping or serum extracts only.

PMID 8074264 demonstrated that patients with allergies to other avian species were cross-reactive (IgE immunoblot) to pigeon feather, serum and dropping extracts.

PubMed Number	<u>Author</u>	Year Published
8074264	Tauer-Reich, I.	1994

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	Original Panel Recommendation	Reclassification Panel Recommendation	
Diagnosis:	Category IIIA	Category I	
Therapy:	Category IIIA	Category I	

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# Product: 42 - Animal Allergens, Poodle Hair

Recommended Scientific Name

Canis lupus familiaris

**Manufacturers of this Product** 

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

### **Search Strategy**

PubMed - Dog hair allergy, dog epithelium allergy, dog dander allergy, dog dander, dog asthma, dog allergen, dog allergenic extracts, dog dander allergenic extracts, dog epithelium allergenic extract, dog skin prick test, dog hair skin prick test, dog epithelium skin prick test, dog allergy immunotherapy, poodle allergy, poodle skin prick test, poodle hair extract

Google – dog extract, "adverse events"; "dog hair" extract, "adverse events"; dog dander extract, "adverse events"; "dog dander" extract, "adverse events"; dog, "allergenic extract", "adverse events"; dog, "skin test", "adverse events"; dog, "immunotherapy", "adverse events"; similar searches with poodle

### **Nomenclature**

According to ITIS, there are six species of Canis. They are: C. adustus, C. aureus, C. latrans, C. lupus, C. mesomelas, and C. simensis. The scientific name of the domestic dog is Canis lupus familaris. The Canis genus is found in the Canidae family. Poodle is a breed of dog. The common name "poodle" is not found in ITIS.

### **Parent Product**

10 - Animal Allergens, Dog Epithelium Canis familiaris

#### **Related Products**

- 9 Animal Allergens, Dog Dander Canis spp.
- 11 Animal Allergens, Dog Hair Canis spp.
- 42 Animal Allergens, Poodle Hair

## **Published Data**

Dog allergens have been found in serum, dander, pelt, hair and saliva. Skin testing is associated with provocation testing (PMID: 6846924). The primary allergens are identified as Can f 1, Can f 2, Can f 3 and Can f 4. Dog allergens can be found in places where dogs have not been present in sufficient amounts to cause symptoms in sensitive patients (PMID: 15241352). Some cross-reactivity between dog and cat allergens and other epidermal allergens have been reported (PMID: 9003217). Studies do not show breed specific differences in allergens. However, differences in the concentration of allergen (Can f 1) present in different breeds have been shown (PMIDs 6230948, 15969688, 2457041).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
9_ J Allergy Clin Immunol 114 - 111.pdf	15241352	Arbes, Samuel Jr.	2004
9_ Ann Allergy 50-340.pdf	6846924	Vanto, T.	1983
9_ J Allergy Clin Immunol 82 - 196.pdf	2457041	Lindgren	1988
9_ Allergy 39-133.pdf	6230948	Uhlin, T.	1984
42_ Allergy 60 - 1060.pdf	15969688	Ramadour, M.	2005
42_ J Allergy Clin Immunol 99 - 100.pdf	9003217	Spitzauer, S.	1997

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category I	Category I
Therapy:	Category IIIA	Category I

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# **Product: 43 - Animal Allergens, Rabbit Epithelia Oryctolagus cuniculus**

### **Manufacturers of this Product**

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

ALK-Abello Inc. - Port Washington, NY (Lic. No. 1256, STN No. 103753)

### **Search Strategy**

PubMed – rabbit epithelium allergy, rabbit major allergen, rabbit skin prick test, rabbit allergy immunotherapy, rabbit dander allergy, rabbit hair extract

Google – rabbit hair, "adverse events"; rabbit hair extract, "adverse events"; "rabbit hair" extracts, "adverse events", rabbit "allergenic extracts", "adverse events", rabbit immunotherapy, "adverse events", rabbit allergy immunotherapy, "adverse events"

### **Nomenclature**

According to ITIS, the scientific name, Oryctolagus cuniculus, is correct. The common name is listed as 'European rabbit'. There are six subspecies of O. cuniculus listed: algirus, brachyotus, cnossius, cuniculus, habetensis, and huxleyi. The Oryctolagus genus is found in the Leporidae family.

#### **Parent Product**

43 - Animal Allergens, Rabbit Epithelia Oryctolagus cuniculus

## **Published Data**

Allergy to rabbits in laboratory workers and pet owners is documented in the literature. Case reports of anaphylaxis to rabbit dander, hair, and serum are reported (PMID: 9759807). The major rabbit allergens identified to date are Ory c 1 (hair, dander, and saliva) a lipocalin, and Ory c 2 (hair, dander, and urine) (PMID:11251632). Major allergens present in hair, dander, and epithelial extracts. Positive SPT in rabbit allergic patients reported (PMIDs 15461612, 8491948).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
43_ Allergy 59-1237.pdf	15461612	Liccardi, G.	2004
43_ Ann ALlergy Asthma Immunol 81-272.pdf	9759807	Prince, E.	1998
43_ Clin Exp Allergy 31 - 303.pdf	11251632	Baker, J	2001
43_ J Allergy Clin Immunol 91-979.pdf	8491948	Desjardins, A.	1993

## Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 44 - Animal Allergens, Rabbit Hair Oryctolagus cuniculus**

### **Manufacturers of this Product**

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223) Nelco Laboratories, Inc. - Deer Park, NY (Lic. No. 459, STN No. 102192)

#### **Search Strategy**

PubMed – rabbit epithelium allergy, rabbit major allergen, rabbit skin prick test, rabbit allergy immunotherapy, rabbit dander allergy, rabbit hair extract

Google – rabbit hair, "adverse events"; rabbit hair extract, "adverse events"; "rabbit hair" extracts, "adverse events", rabbit "allergenic extracts", "adverse events", rabbit immunotherapy, "adverse events", rabbit allergy immunotherapy, "adverse events"

### **Nomenclature**

According to ITIS, the scientific name, Oryctolagus cuniculus, is correct. The common name is listed as 'European rabbit'. There are six subspecies of O. cuniculus listed: algirus, brachyotus, cnossius, cuniculus, habetensis, and huxleyi. The Oryctolagus genus is found in the Leporidae family.

### **Parent Product**

44 - Animal Allergens, Rabbit Hair Oryctolagus cuniculus

## **Published Data**

Allergy to rabbits in laboratory workers and pet owners is documented in the literature. Case reports of anaphylaxis to rabbit dander, hair, and serum are reported (PMID: 9759807). The major rabbit allergens identified to date are Ory c 1 (hair, dander, and saliva) a lipocalin, and Ory c 2 (hair, dander, and urine) (PMID:11251632). Major allergens present in hair, dander, and epithelial extracts. Positive SPT in rabbit allergic patients reported (PMIDs 15461612, 8491948).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
43_ Allergy 59-1237.pdf	15461612	Liccardi, G.	2004
43_ Ann ALlergy Asthma Immunol 81-272.pdf	9759807	Prince, E.	1998
43_ Clin Exp Allergy 31 - 303.pdf	11251632	Baker, J	2001
43_ J Allergy Clin Immunol 91-979.pdf	8491948	Desjardins, A.	1993

## Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# **Product: 45 - Animal Allergens, Rat Epithelia Rattus norvegicus**

### **Manufacturers of this Product**

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

ALK-Abello Inc. - Port Washington, NY (Lic. No. 1256, STN No. 103753)

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

## **Search Strategy**

PubMed – (rat allergy and allergy to rat too broad) rat hair allergy, rat epithelium allergy, rat dander allergy, rat allergen, Rat n 1, rat hair skin test, rat hair extract, rat hair allergenic extract, rat hair skin prick test, rat epidermal skin prick test, rat allergy immunotherapy. Similar searches using "Rattus norvegicus", rat urine and rat albumin

Google – rat, "adverse events"; rat hair extract, "adverse events"; "rat hair", "adverse events"; "rat hair" allergenic extract, "adverse events; rat hair, "allergenic extract", "adverse events"; rat "allergenic extract", "adverse events"; Similar searches using rat epidermal

### **Nomenclature**

According to ITIS, the scientific name, Rattus norvegicus, is correct. The common name is listed as Norway rat. The Rattus genus is found in the Murinae subfamily and Muridae family.

#### **Parent Product**

45 - Animal Allergens, Rat Epithelia Rattus norvegicus

## **Published Data**

Allergy to rats in laboratory workers is well documented in the literature (PMID: 8575577). Data from the National Cooperative Inner City Asthma Study (US) demonstrate that rat allergen sensitization and exposure are associated with increased asthma morbidity in inner city children (PMID: 12897741). Concentrated amounts of rat allergens have been found in laboratory and inner city home environments. Rat hair and epithelium carry allergens derived primarily from saliva and urine (PMID: 3968335). The major allergen is Rat n 1, a urinary protein. Other minor allergens can be found uniquely in urine, saliva or skin (PMID: 11421905). Sensitization to rats may occur from exposure to any of these allergens, however Rat n 1 is cited most frequently (PMID: 15042921).

PubMed Number	<u>Author</u>	Year Published
3968335	Walls, A.F.	1985
8575577	Renstrom, A	1995
11421905	Gordon, S.	2001
12897741	Perry, T.	2003
15042921	Viartanen, T.	2004
	3968335 8575577 11421905 12897741	3968335 Walls, A.F. 8575577 Renstrom, A 11421905 Gordon, S. 12897741 Perry, T.

## Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# Product: 46 - Animal Allergens, Rat Hair Rattus sp.

**Recommended Scientific Name** 

Rattus norvegicus

**Manufacturers of this Product** 

Nelco Laboratories, Inc. - Deer Park, NY (Lic. No. 459, STN No. 102192)

#### **Search Strategy**

PubMed – (rat allergy and allergy to rat too broad) rat hair allergy, rat epithelium allergy, rat dander allergy, rat allergen, Rat n 1, rat hair skin test, rat hair extract, rat hair allergenic extract, rat hair skin prick test, rat epidermal skin prick test, rat allergy immunotherapy. Similar searches using "Rattus norvegicus", rat urine and rat albumin.

Google – rat, "adverse events"; rat hair extract, "adverse events"; "rat hair", "adverse events"; "rat hair" allergenic extract, "adverse events; rat hair, "allergenic extract", "adverse events"; rat "allergenic extract", "adverse events"; similar searches using rat epidermal

### **Nomenclature**

According to ITIS, there are 55 species within the Rattus genus. The common name of this genus is old world rat. The Rattus genus is found in the Murinae subfamily and Muridae family.

#### **Parent Product**

46 - Animal Allergens, Rat Hair Rattus sp.

## **Published Data**

Allergy to rats in laboratory workers is well documented in the literature (PMID: 8575577). Data from the National Cooperative Inner City Asthma Study (US) demonstrate that rat allergen sensitization and exposure are associated with increased asthma morbidity in inner city children (PMID: 12897741). Concentrated amounts of rat allergens have been found in laboratory and inner city home environments. Rat hair and epithelium carry allergens derived primarily from saliva and urine (PMID: 3968335). The major allergen is Rat n 1, a urinary protein. Other minor allergens can be found uniquely in urine, saliva or skin (PMID: 11421905). Sensitization to rats may occur from exposure to any of these allergens, however Rat n 1 is cited most frequently (PMID: 15042921).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
45_ J Allergy Clin Immunol 75-242.pdf	3968335	Walls, A.F.	1985
45_ Eur Respir J 8-1514.pdf	8575577	Renstrom, A	1995
45_ Allergy 56-563.pdf	11421905	Gordon, S.	2001
45_ J Allergy Clin Immunol 112-346.pdf	12897741	Perry, T.	2003
37_ Clin Allergy and Immunol 18-297.pdf	15042921	Viartanen, T.	2004

## Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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# Product: 47 - Animal Allergens, Silk

Recommended Common Name silkworms
Recommended Scientific Name Bombyx mori

**Manufacturers of this Product** 

Antigen Laboratories, Inc. - Liberty, MO (Lic. No. 468, STN No. 102223)

Greer Laboratories, Inc. - Lenoir, NC (Lic. No. 308, STN No. 101833)

Nelco Laboratories, Inc. - Deer Park, NY (Lic. No. 459, STN No. 102192)

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

### **Search Strategy**

PubMed and ISI – silk allergy, silk asthma, silk skin prick test, silk extract, silk allergenic extract, bombyx mori allergy, bombyx mori extract, bombyx mori allergenic extract,

Google – "silk allergy"; "silk extract"; "silk extract", "adverse events"; "mulberry silk extract"; "silk allergenic extract", "silk", skin test; "silk", "adverse events"; bombyx, "allergenic extract"; "silk allergy", "immunotherapy"

#### **Nomenclature**

Cultivated mulberry silk is from the cocoons of Bombyx mori silk moths. According to ITIS, Bombyx mori is a correct scientific name for silkworms. The Bombyx genus is found in the Bombycini tribe, Bombycinae subfamily, and Bombycidae family.

#### **Parent Product**

47 - Animal Allergens, Silk

## **Published Data**

Wild silk (tussah silk, oak-leaf silk) is produced from cocoons of wild silk moths of other species. The literature most frequently reports on allergy to Bombyx mori silk (PMID 2244708, 1921346, 8844500, 4037438). Silk is a well-known occupational allergy in silk allergy workers (PMID 1921346, 4037438). Allergy is also reported to raw silk waste used to fill quilts and pillows (PMID 2244708). Skin tests to extracts of raw silk were positive in several studies ((PMID 2244708, 1921346, 4037438).

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
47_ Ann Allergy 65-375.pdf	2244708	Wen, C.M.	1990
47_ J Soc Occup Med 41-140.pdf	1921346	Uragoda, C.G	1991
47_ J Investig Allergol Clin Immunol 6-237.pdf	8844500	Zaoming, W.	1996
47_ Ann Allergy 55-511.pdf	4037438	Harindranath N,	1985

#### Panels:

	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category I	Category I
Therapy:	Category IIIA	Category I

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# **Product:** 48 - Animal Allergens, Turkey Feathers Meleagris sp.

Recommended Scientific Name Meleagris, (species to be specified)

**Manufacturers of this Product** 

Allergy Laboratories, Inc. - Oklahoma City, OK (Lic. No. 103, STN No. 101376)

## **Search Strategy**

PubMed and ISI - turkey allergy, turkey feather allergy, turkey feather skin test, turkey feather immunotherapy, turkey worker allergies

Google – turkey feather allergy; turkey feather, "adverse events"; "turkey feather", "adverse events"; "turkey feather, immunotherapy

## **Nomenclature**

According to ITIS, there are two species of Meleagris: gallopavo and ocellata. A synonym for Meleagris is Agriocharis. The Meleagris genus is found in the Meleagridinae subfamily and Phasianidae family.

#### **Parent Product**

48 - Animal Allergens, Turkey Feathers Meleagris sp.

#### **Published Data**

Pulmonary hypersensitivity to various avian antigens is well-documented in the literature. Skin testing not generally considered useful for diagnosis of this disease and is not an approved indication. Only one article (PMID 9534914) was found relating this syndrome to workers in the turkey raising industry. No articles in the literature were found specific to turkey feather allergy. No articles were found demonstrating cross-reactivity of turkey feather allergens with those of other birds.

<u>Documents</u>	PubMed Number	<u>Author</u>	Year Published
13_ Allergy 53-159.pdf	9534914	Kilpio, K.	1998

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	Original Panel Recommendation	Reclassification Panel Recommendation
Diagnosis:	Category IIIA	Category I
Therapy:	Category IIIA	Category I

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