



FabGennix Inc.
INTERNATIONAL

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Antibodies to Cat Allergen Fel D1

Cat allergen Fel D1 antibodies (FelD1-101AP, FelD1-112AP and FelD1-121AP)

A number of house pet bourn allergens have been studied for allergic reactions in general population. Some of these allergens namely Fel D1 (cat), Can f1 (dog), Der p1 and Der f1 (mite) are carried by the pet owners to the public places like classroom, restaurants, public library etc., and the clothes and upholstered furniture act as reservoirs for these allergens. Domestic cat (*Felis domestica*) is an important source of indoor allergen Fel D1, that affected a large population. Fel D1 is also established to cause cat induce asthma in sensitive patients. The levels of Fel d1 and Can f1 were high in homes of former pet-owners compared to the homes without pets.

Children with mild allergy to animal dander, may have profound increase in bronchial sensitivity (increased sputum eosinophil peroxidase (EPO) and myeloperoxidase (MPO) activity as a result of constant exposure of animal allergens (Fel D1 and Can f1) at public places. Allergic reactions to Fel D1 is effectively reduced by conventional immunotherapy in many patients, but this type of immunotherapy has severe reactions, including anaphylaxis and requires several years of injections for successful desensitization. Several strategies have been employed to address these issues including use of cat allergen peptides (2), chimeric constructs of Fel D1 and Fc portion of human IgEs (4). The synthetic cat allergen peptides lack the tertiary structure of native Fel D1 and posses reduced capacity to bind Fel D1-specific IgE. These peptides when given to patients sensitive to cat allergens showed improvement in pulmonary function and tolerance to cats (2). The exposure of chimeric human –cat fusion protein composed of truncated human IgG γ 1 and the Fel D1. the chimeric protein induce dose dependent inhibition of Fel D1-driven IgE mediated histamine release form cat allergic donors (3).

The allergen is a 38 kDa dimer composed of two 19 kDa subunits. Each 19 kDa subunit comprises two disulfide linked polypeptide chains, a light alpha-chain and a heavy beta-chain containing an N-linked oligosaccharide. The alfa light chain and the heavy beta chain are linked in an anti-parallel configuration. The Fel D1 glycosylation atr Asn 33 is of heterogeneous triantennary structure caused by terminal sialic acid and fucose residues attached to beta-galactose residues. FabGennix Int. Inc., has made anti-Fel D1-selective antibodies against 3 epitopes covering the majority of the protein. The affinity purified mono-specific polyclonal antibodies to FEL D1 strongly labels a 15-18 kDa protein in cat saliva samples examined. *FabGennix Inc.* will also conjugate antibodies with fluorescent probes upon request at extra charge. FabGennix Inc employs cyclic peptide methodology for generating antibodies, which results in higher titer and specificity (3). FabGennix, Inc., will also provide Western blot positive controls most of its antibodies in ready-to-use buffer for easy identification of respective proteins. Limited quantities of antigens/blocking peptides are also available. Please enquire for their availability before ordering.

Catalog #	Host Species	Nature	Cross reactivity	Quantity	Price
FelD1-101AP	Rabbit	Affinity purified Fel D1 chain 1 antibodies	R, M, H, monk	150-175 l	235
FelD1-112AP	Rabbit	Affinity purified Fel D1 chain 2 antibodies	R, M, H, monk	150-176 l	235
FelD1-121AP	Rabbit	Affinity purified Fel D1 chain 1 antibody	R, M, H, monk	150-175ul	235
P-FelD1	n/a	Antigenic blocking peptides (100, 110 & 120)	R, M, H, monk	250 ug	145
PC-FelD1	cells	Western blot positive control for cat Fel D1	R, M, H, monk	5 appl	245

R = rat; M = mouse; H = human; C = chicken; monk = monkey ; * not all variants are labeled equally

Immunogen: Synthetic peptides unique to Fel D1 protein

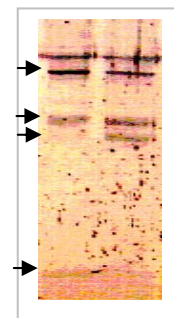
Concentration: FelD1-101AP, FelD1-112AP and FelD1-121AP IgG concentration 0.65-1.25 mg/ml.

Applications: Antibodies FelD1-101AP, FelD1-112AP and FelD1-121AP are ideal for WB and ELISA testing. The use of these antibodies in other applications have not been tested. PANP-101AP has not been tested in other applications. The dilutions for these antibodies are for reference only, investigators are expected to determine the optimal conditions for specific assay. WB; 1:500; ELISA 1:10,000

Reactivity: This antibody detects a single band of 16-17 kDa in PC-PANP samples. The antibody also reacts to a 18 kDa protein in various tissues expressing Pro-ANP protein.

Protocols: Standard protocol for various applications (WB, IMM and IHC) of this antibody is provided with the product specification sheet, however, FabGennix Int. Inc.

Form/Storage: The antiserum is supplied in antibody stabilization buffer with 0.02% sodium azide. For long-term storage of antibodies, store at -20°C. FabGennix Int. Inc. does not recommend storage of very dilute antibody solutions unless they are prepared in specially formulated multi use antibody dilution buffer (Cat # DilUbuffer). Working solutions of antibodies in DilUbuffer should be filtered through 0.45 μ filter after every use for long-term storage.



References:

- Hoffmann U, Brueckmann M, Bertsch T, Wiessner M, Liebetau C, Lang S, Haase KK, Borggreffe M, Huhle G. Increased plasma levels of NT-proANP and NT-proBNP as markers of cardiac dysfunction in septic patients. *Clin Lab.* 2005;51(7-8):373-9.
- Kristensen AK, Schou C, Roepstorff P. Determination of isoforms, N-linked glycan structure and disulfide bond linkages of the major cat allergen Fel d1 by a mass spectrometric approach. *Biol Chem.* 1997 Aug;378(8):899-908. Related Articles, Links
- Maguire P, Nicodemus C, Robinson D, Aaronson D, Umetsu DT. The safety and efficacy of ALLERVAX CAT in cat allergic patients. *Clin Immunol.* 1999 Dec;93(3):222-31. Related Articles, Links

*For users who may require large amounts of FelD1-101AP, FelD1-112AP and FelD1-121AP, please enquire about bulk material discounts.
This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.

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