FEL D1 Major Allergen I Polypeptide Chain 1 Antigenic Blocking Peptide C-Epitope Blocking Peptide

PRODUCT OVERVIEW

Product Name	FEL D1, Blocking Peptide
Full Product Name	FEL D1 Major Allergen I Polypeptide Chain 1 Antigenic Blocking Peptide C-epitope
Product Gene Name	FEL D1 blocking peptide
Product Synonym Names	H1, Fel D1, AG4, Allergen Cat-1, Allergen D I-A, Allergen FDI, Allergen Fel Di, Allregen: Fel d 1-A
Form/Format	Antigenic Blocking Peptide
Preparation and Storage	Store at -20°C for long term storage.
Antibody/Peptide Pairs	FEL D1 peptide (MBS543670) is used for blocking the activity of FEL D1 antibody (MBS541581)
Antibody/Peptide Pairs	FEL D1 peptide (MBS543670) is used for blocking the activity of FEL D1 antibody (MBS541582)
Immunogen	Synthetic peptide taken within amino acid region 42-88 on feline Major Cat Allergen I polypeptide chain 1.
Applications Tested/Suitable for FEL D1 blocking peptide	Immunodepletion, Immunocompetition
Application Notes for FEL D1 blocking peptide	Immunohistohcemistry 1:250 Immunofluorescence: 1:250 Immunohistochemistry: 1:250 Immunoprecipitation: 1:250 Western Blot: 1:500
Related Product Information for FEL D1 blocking peptide	A number of house pet bourn allergens have been studied for allergic reactions in general population. Domestic cat (Felis domestica) is an important source of indoor allergen Fel D1 that affects a large opulation. Fel Dl is also established to cause catinduce asthma in sensitive patients. The levels of Fel D1 nd Can Fl were high in homes of former pet-owners compared to the homes without pets. Children with ild allergy to animal dander may have profound increase in bronchial sensitivity (increased sputum osinophil peroxidase (EPO) and myeloperoxidase (MPO) activity as a result of constant exposure of nimal allergens (Fel D1 and Can Fl) at public places. Allergic reactions to Fel D1 are effectively reduced y conventional immunotherapy in many patients, but this type of irnmunotherapy has severe reactions, ncluding anaphylaxis and requires several years of injections for successful desensitization. Several trategies have been employed to address these issues including use of cat allergen peptides, chimeric onstructs of Fel D1 and Fc portion of human lgEs (1). The synthetic cat allergen peptides lack the tertiary tructure of native Fel D1 and posses reduced capacity to bind Fel D1-specific lgE. These peptides when iven to patients sensitive to cat allergens showed improvement in pulmonary function and tolerance to ats (1). The exposure of chimeric human -cat fusion protein composed of truncated human lgGFcgammal nd the Fel Dl . The chimeric protein induces dose dependent inhibition of Fel D1-driven lgE mediated istamine release form cat allergic donors (2). The allergen is a 38 kDa dimer composed of two 19 kDa subunits. ach 19 kDa subunit comprises two disulfide linked polypeptide chains, a light alpha-chain and a heavy beta-chain containing an N-linked ligosaccharide. The alpha light chain and the heavy beta chain are linked in an anti-parallel configuration. The Fel Dl glycosylation at Asn 3 is of heterogeneous triantennary structure caused by terminal sialic acid and fructose residues attached to beta-galactose residues. FabGennix has developed anti-Fel D1-selective antibodies against 3 epitopes covering the majority of the protein. The affinity purified ono- pecific polyclonal antibodies to FEL D1 strongly labels a 15-18 kDa protein in cat saliva samples examined. MBS employs cyclic eptide methodology for generating antibodies, which results in higher titer and specificity. Western blot positive control in readyto-use DS-sample buffer (PC-FELDI) and antigenic blocking peptide (P-FELD1 .3) are available. Antibodies can be conjugated with fluorescent robes or other secondary enzymes upon request at extra charge.
Other Notes	Small volumes of FEL D1 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for FEL D1 purchase	MBS543670 is a blocking peptide targeting FEL D1. Also known as FEL D1 Major Allergen I Polypeptide Chain 1 Antigenic Blocking Peptide C-epitope.



Western Blot (WB) of FEL D1 blocking peptide
Western Blot of FEL D1 antibody (FELD1-121AP) with:1) Control Cat Saliva2) Mutated Cat Salive60 ul of sample was applied to each lane. Apparent MW is 11 kDa.Dilutions are for reference only. Applications not listed above are not necessarily precluded from working with this antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for FEL D1. It may not necessarily be applicable to this product.

NCBI GI #	1169665
NCBI GeneID	677877
NCBI Accession #	P30438.2
UniProt Primary Accession #	P30438
UniProt Secondary Accession #	P30439
UniProt Related Accession #	P30438
NCBI Official Full Name	Major allergen I polypeptide chain 1
NCBI Official Symbol	LOC677877
NCBI Official Synonym Symbols	CH1
UniProt Protein Name	Major allergen I polypeptide chain 1
UniProt Synonym Protein Names	AG4; Allergen Cat-1; Allergen Fel d I-A; Allergen FdI; Allergen Fel dI; Allergen: Fel d 1-A
UniProt Gene Name	CH1
UniProt Synonym Gene Names	Allergen FdI; Allergen Fel dI
UniProt Entry Name	FEL1A_FELCA
NCBI Protein Information	major allergen I polypeptide chain 1
Research Articles on FEL D1	**1.** Conformational effects brought upon by glycosylation were identified, potentially involved in cavity volume regulation. Only the central Ca2+ ion remains coordinated to Fel d 1 in biological solutions, impairing its role in modulating phospholipase A2.
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