

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Allergin-1 in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 767727
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Allergin-1 Met1-Lys227 Accession # Q7Z6M3
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10 ⁶ cells	Human peripheral blood monocytes

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

MCA32 (Mast Cell Antigen; also Allergin-1 and c17orf60) is a 70 kDa member of the Ig Superfamily. It is expressed on mast cells, basophils, neutrophils and macrophages, and is reported to negatively regulate allergic mediator release from mast cells. In particular, MCA32 interacts with FcεRI. Upon IgE mediated FcεRI aggregation and activation, Allergin-1 recruits Tyr phosphatases to a FcεRI tetrameric complex, dampening IgE receptor downstream signaling. Mature human Allergin-1 is a monomeric type I transmembrane glycoprotein that is 324 amino acids (aa) in length. It contains two C2-type Ig domains (aa 35-118 and 123-217) in the extracellular region (aa 20-227), plus a 95 aa cytoplasmic domain that possesses two ITIM motifs. Two 40 kDa splice variants exist that show deletions of the Ig-like domains. One isoform termed Allergin-1S1 is missing aa 128-217, while a second isoform called Allergin-1S2 is missing aa 33-122. This second isoform represents the antigen used for immunization in this product (GenBank BAJ08253). Over aa 29-131, the Allergin-1S2 isoform shares 100% sequence identity with human Allergin-1L full length isoform and only 24% aa sequence identity with mouse Allergin-1.

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