

DESCRIPTION

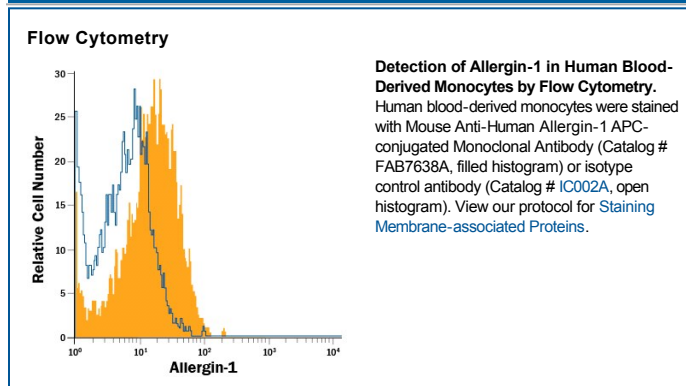
| | |
|---------------------------|--|
| Species Reactivity | Human |
| Specificity | Detects human Allergin-1 in direct ELISAs. |
| Source | Monoclonal Mouse IgG ₁ Clone # 767727 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | Mouse myeloma cell line NS0-derived recombinant human Allergin-1 Met1-Lys227 Accession # Q7Z6M3 |
| Conjugate | Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm |
| Formulation | Supplied 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 | 10 μ L/10 ⁶ cells | See Below |

DATA



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

Allergin-1, also known as MCA32 and c17orf60 is a 70-72 kDa member of the Ig Superfamily. It is expressed on mast cells, basophils, neutrophils, dendritic cells, B cells and monocytes, 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 and abrogating mast cell degranulation. 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 40-42 kDa splice variants exist that show deletions of one of the two Ig-like domains. One isoform termed Allergin-1S1 is missing aa 123-217, while a second isoform called Allergin-1S2 is missing aa 33-122. It would appear that mouse Allergin-1 exists in two forms; a soluble form lacking the TM segment, and a TM form that is analogous to the human 1S1 isoform (no two Ig-like domain-containing isoform exists). Within this context (aa 20-122 plus aa 218-227 in human), human and mouse share 48% aa sequence identity.