

## Fc epsilon RIA/FCER1A Protein, Mouse (204a.a, HEK293, Fc)

Cat. No.:	HY-P75212
Synonyms:	Fc epsilon RI alpha; FCE1A; FCER1A; FcERI; FceRIa
Species:	Mouse
Source:	HEK293
Accession:	P20489 (A24-Q204)
Gene ID:	14125
Molecular Weight:	Approximately 64.07 kDa

### PROPERTIES

AA Sequence	<p>A T E K S V L T L D P P W I R I F T G E K V T L S C Y G N N H L Q M N S T T K W</p> <p>I H N G T V S E V N S S H L V I V S A T V Q D S G K Y I C Q K Q G L F K S K P V</p> <p>Y L N V T Q D W L L L Q T S A D M V L V H G S F D I R C H G W K N W N V R K V I</p> <p>Y Y R N D H A F N Y S Y E S P V S I R E A T L N D S G T Y H C K G Y L R Q V K Y</p> <p>E S D K F R I A V V K A Y K C K Y Y W L Q</p>
Biological Activity	Data is not available.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	Fc epsilon RIA/FCER1A Protein is a high-affinity receptor for immunoglobulin epsilon/IgE. It plays a crucial role in mediating IgE effector functions in myeloid cells. Upon binding IgE and cross-linking with antigen/allergen, it initiates signaling pathways that activate and differentiate myeloid cells. This activation leads to the secretion of vasoactive amines, lipid mediators, and cytokines by mast cells, basophils, and eosinophils, which contribute to inflammatory responses, tissue remodeling, and cytotoxicity against microbes. The protein is responsible for triggering the immediate hypersensitivity
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response to allergens, acting as a host defense mechanism against helminth parasites, pathogenic bacteria, and venom toxicity. However, when dysregulated, it can cause harmful, life-threatening allergic and anaphylactic reactions. Structurally, Fc epsilon R1A/FCER1A Protein consists of a tetramer comprising an alpha chain, a beta chain, and two disulfide-linked gamma chains. It interacts with IGHE through its CH3 region.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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