Data Sheet (Cat.No.TMPY-03064)

TargetMol

Fc epsilon RI Protein, Mouse, Recombinant (hFc)

General Information

Synonyms:	α polypeptide;FcERI;Fc ε RI;Fcr-5;alpha polypeptide;Fce1a;Fc fragment of IgE, high affinity I, receptor for;fcεri;fcepsilonri
Protein Construction:	Ala24-Gln204
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	P20489
Molecular Weight:	47.7 kDa (Predicted); 68-72 kDa (Due to glycosylation)

QC Testing

Biological Activity:	Activity testing is not tested. It is theoretically active, but we cannot guarantee it.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Known susceptibility genes to atopy and asthma have been identified by linkage or associations with clinical phenotypes, including total serum IgE levels. IgE-mediated sensitivity reactions require a high-affinity IgE receptor (FcepsilonRI), which immobilizes the immunoglobulin on the surface of the effector cells, mostly mast cells and basophils. Similarly to the previously investigated beta subunit of the receptor, FCER1A is a good candidate for a quantitative trait locus (QTL) in allergic diseases, and appears to participate in the systemic regulation of IgE

levels.

Reference

Shikanai T,et al.(2002) Sequence variants in the FcepsilonRI alpha chain gene. J Appl Physiol. 93(1):37-41.
Sada K,et al.(2002) Regulation of FcepsilonRI-mediated degranulation by an adaptor protein 3BP2 in rat basophilic leukemia RBL-2H3 cells. Blood. 100(6):2138-44.
Takahashi K,et al.(2003) Transcriptional regulation of the human high affinity IgE receptor alpha-chain gene. Mol Immunol. 38(16-18):1193-9.

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