

Recombinant Human CD89/FCAR Protein (His Tag)

Catalog No. PKSH031620

Note: Centrifuge before opening to ensure complete recovery of vial contents.

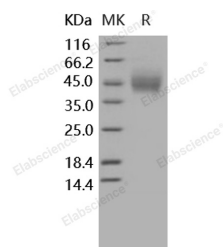
Description

Synonyms	Immunoglobulin Alpha Fc Receptor;IgA Fc Receptor;CD89;FCAR;CTB-61M7.2;FcalphaRI;FCAR;XXbac-BPG230H20.5
Species	Human
Expression Host	HEK293 Cells
Sequence	Met 1-Asn 227
Accession	NP_001991.1
Calculated Molecular Weight	25 kDa
Observed molecular weight	45.7 kDa
Tag	C-His
Bioactivity	Measured by its ability to bind human IgA in functional Elisa.

Properties

Purity	> 97 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 97 % as determined by reducing SDS-PAGE.

Background

FCAR, also called FcαRI or CD89, is a type I transmembrane receptor for Fc region of IgA which is the most abundant

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immunoglobulin in mucosal areas but is only the second most common antibody isotype in serum. This receptor is present on the surface of myeloid lineage cells such as neutrophils, monocytes, macrophages, and eosinophils, especially phagocytes located in mucosal areas. Upon ligand IgA binding, Fc α RI associates with the FcR γ signaling molecule bearing the immunoreceptor tyrosine-based activation motif (ITAM) through a unique charge-based mechanism and triggers multiple cell-mediated immune responses. It has been reported that Fc RI is a dual-function receptor that can mediate both inflammatory and anti-inflammatory responses depending on the type of interaction with its ligand. Sustained aggregation of FCAR results in activation of target-cell functions such as antigen presentation and cytokine release. In contrast, Monomeric targeting with serum IgA or with a variety of anti-Fc α RI Fab fragments triggers an inhibitory response and additionally induces apoptosis. Fc α RI thus play an fundamental role in preventing tumor development and growth, as well as in controlling inflammation.