# Recombinant Human CD89/FCAR Protein (His Tag)

**Catalog Number: PKSH031620**

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

## Description

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|---|---|
| **Species** | Human |
| **Source** | HEK293 Cells-derived Human CD89/FCAR protein Met 1-Asn 227, with an C-terminal His |
| **Calculated MW** | 25 kDa |
| **Observed MW** | 45.7 kDa |
| **Accession** | NP_001991.1 |
| **Bio-activity** | Measured by its ability to bind human IgA in functional Elisa. |

## Properties

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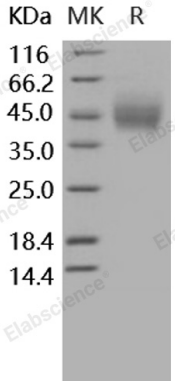
|---|---|
| **Purity** | > 97 % as determined by reducing SDS-PAGE. |
| **Endotoxin** | < 1.0 EU per μg of the protein as determined by the LAL method. |
| **Storage** | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored 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<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>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 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, FcαRI 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-FcαRI Fab fragments triggers an inhibitory response and additionally induces apoptosis. FcαRI thus play an fundamental role in preventing tumor development and growth, as well as in controlling inflammation.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