

Human CD89 / FCAR Protein (His Tag)

Catalog Number: 10414-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CD89; CTB-61M7.2; FcαRI; FCAR; XXbac-BPG230H20.5

Protein Construction:

A DNA sequence encoding the pro form of human FCAR extracellular domain (NP_001991.1) (Met 1-Asn 227) was expressed with a C-terminal polyhistidine tag.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Gln 22

Molecular Mass:

The secreted recombinant human CD89 is a monomeric protein consisting of 217 amino acids and predicts a molecular mass of 25 kDa. The apparent molecular mass of rhCD89 is approximately 45-50 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

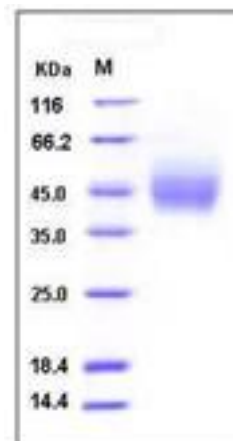
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

References

3.Maliszewski, C.R. et al., 1990, J. Exp. Med. 172: 1665-1672.

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