

# Recombinant Monkey FCAR Protein, His-tagged

**Cat. No.** FCAR-11048M    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| <b>Product Overview</b> | Rhesus macaque CD89 Protein, His Tag is expressed from human 293 cells (HEK293). It contains AA Gln 22 - Asn 227 (Accession # F7H5K2-1). This protein carries a polyhistidine tag at the C-terminus. Predicted N-terminus: Gln 22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Species</b>          | Monkey                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>ProteinLength</b>    | 22-227 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Description</b>      | CD89 (FcαRI), encoded by the FCAR gene, is an IgA-specific receptor primarily expressed on myeloid cells (e.g., neutrophils, monocytes/macrophages). It mediates immune defense functions by binding to the Fc region of IgA (with a preference for polymeric forms), facilitating phagocytosis, antibody-dependent cellular cytotoxicity (ADCC), and inflammation regulation. Its signaling relies on the ITAM motif of the Fcγ chain, enabling dual immunoregulatory roles in both activation and suppression. Clinically, CD89 is implicated in IgA nephropathy, pathogen immune evasion, and tumor immunity. Targeted therapies, such as the bispecific antibody MOR202, are under development for diseases like multiple myeloma, highlighting its therapeutic potential as a bridge between mucosal and systemic immunity. |
| <b>Form</b>             | Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Molecular Mass</b>   | The protein has a calculated MW of 25.2 kDa. The protein migrates as 45-58 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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|                       |                                                                                                                                                                                                                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.                                                                                                                                                                                                 |
| <b>Endotoxin</b>      | Less than 1.0 EU/μg by the LAL method/rFC method.                                                                                                                                                                                                                                                                            |
| <b>Purity</b>         | >90% as determined by SDS-PAGE. >90% as determined by SEC-MALS.                                                                                                                                                                                                                                                              |
| <b>Storage</b>        | This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. |
| <b>Reconstitution</b> | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 μg/μL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.                                                                                                                                       |

## GENE INFORMATION

|                        |                                                                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | FCAR Fc alpha receptor [ <i>Macaca mulatta</i> (Rhesus monkey) ]                                                                                                              |
| <b>Official Symbol</b> | FCAR                                                                                                                                                                          |
| <b>Synonyms</b>        | FCAR; Fc alpha receptor; CD89; immunoglobulin alpha Fc receptor; Fc fragment of IgA receptor; Fc fragment of IgA, receptor for; IgA Fc receptor; immunoglobulin A Fc receptor |
| <b>Gene ID</b>         | 664734                                                                                                                                                                        |
| <b>mRNA Refseq</b>     | NM_001039950                                                                                                                                                                  |
| <b>Protein Refseq</b>  | XP_077831970                                                                                                                                                                  |

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UniProt ID

F7H5K2

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