

**Recombinant Human CD89 / FCAR Protein (His tag)****Cat.NO.: TP07873**

3th Edition

**Synonyms:**CD89;CTB-61M7.2;FcalphaRI;FCAR;XXbac-BPG230H20.5

**Description:**FCAR, also called Fc $\gamma$ RI 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, Fc $\gamma$ RI associates with the Fc $\gamma$ R  $\gamma$  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 $\gamma$ 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 $\gamma$ RI Fab fragments triggers an inhibitory response and additionally induces apoptosis. Fc $\gamma$ RI thus play an fundamental role in preventing tumor development and growth, as well as in controlling inflammation.

**Form:**PBS**Molecular Weight:**25 kDa**Sequences:**Met 1-Asn 227**Purity:**> 95% by HPLC**Concentration:****Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)

**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.