



Recombinant Protein Technical Manual

Recombinant Human CD89/FCAR Protein (His Tag)(Active)
RPES3376

Product Data:

Product SKU: RPES3376

Size: 50µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_001991.1

Protein Information:

Molecular Mass: 25 kDa

AP Molecular Mass: 45-50 kDa

Tag: C-His

Bio-activity: Measured by its ability to bind human IgA in functional Elisa.

Purity: > 97 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: 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

Reconstitution: Please refer to the printed manual for detailed information.

Application: Functional ELISA

Synonyms: Immunoglobulin Alpha Fc Receptor; IgA Fc Receptor; CD89; FCAR; CTB-61M7.2; FcαRI; FCAR; XXbac-BPG230H20.5

Immunogen Information:

Sequence: Met 1-Asn 227

Background:

FCAR, also called Fc α 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 α RI associates with the Fc 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.