



Recombinant Protein Technical Manual

Recombinant Human CD16a/FCGR3A Protein (His Tag)(Active)

RPES3567

Product Data:

Product SKU: RPES3567

Size: 10µg

Species: Human

Expression host: Human Cells

Uniprot: P08637

Protein Information:

Molecular Mass: 22.6 kDa

AP Molecular Mass: 40 kDa

Tag: C-6His

Bio-activity: Immobilized Human IgG1Fc(Cat: PKSH032558) at 10µg/ml(100 µl/well) can bind Human CD16a-His. The ED50 of Human CD16a-His is 2.57 ug/ml .

Purity: > 95 % 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 a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.2.

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

Application: Functional ELISA

Synonyms: Low Affinity Immunoglobulin Gamma Fc Region Receptor III-A; CD16a Antigen; Fc-Gamma RIII-Alpha; Fc-Gamma RIII; Fc-gamma RIIIa; FcRIII; FcRIIIa; FcR0; IgG Fc Receptor III-2; CD16a; FCGR3A; CD16A; FCG3; FCGR3; IGFR3;CD16;CD16A

Immunogen Information:

Sequence: Gly17-Gln208

Background:

Receptors for the Fc region of immunoglobulin G (FcγR) are divided into three classes and FcγRIII is a multifunctional, low/intermediate affinity receptor. In humans, FcγRIII is expressed as two distinct forms (FcγRIIIA and FcγRIIIB) that are encoded by two different but highly homologous genes in a cell type-specific manner. FcγRIIIB is a low-affinity, GPI-linked receptor expressed by neutrophils and eosinophils, whereas FcγRIIIA is an intermediate affinity polypeptide-anchored transmembrane glycoprotein expressed by a subset of T lymphocytes, natural killer (NK) cells, monocytes, and macrophages. The FcγRIIIA receptor is involved in phagocytosis, secretion of enzymes, inflammatory mediators, antibody-dependent cellular cytotoxicity (ADCC), mast cell degranulation, and clearance of immune complexes. FcγRIIIA has an immunoreceptor tyrosine-based activation motif (ITAM) in its cytoplasmic domain and delivers an activation signal in the immune responses. Aberrant expression or mutations in this gene is implicated in susceptibility to recurrent viral infections, systemic lupus erythematosus, and alloimmune neonatal neutropenia. In humans, it is a 50 -70 kD type I transmembrane activating receptor. The FcγRIIIA cDNA encodes 254 amino acid including a 16aa signal sequence, 191 amino acid ECD with two C2-type Ig-like domains, five potential N-glycosylation sites, a 22 amino acid transmembrane sequence and a 25 amino acid cytoplasmic domain.