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Product datasheet for TP721248

CD16 (FCGR3A) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	PE Conjugated Human CD16a Protein (C-His, 176V)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	Gly17-Gln208
Tag:	C-His
Predicted MW:	The protein has the predicted molecular weight of 24 kDa and migrates at approximately 40-50 kDa on SDS-PAGE with DTT-reduced condition before PE conjugation.
Concentration:	25μg size is bottled at 0.1mg/mL concentration. 100 μg size is bottled at lot specific concentration.
Purity:	>90%
Conjugation:	PE
Buffer:	1xPBS buffer, pH7.4, 0.09% NaN3 with a carrier protein
Bioactivity:	Positive The definition of the active protein (purified and biotinylated) is defined as the protein that can bind to its biological receptor/ligand. For conjugated protein, it is defined with its function to bind to the ScFv of the active CAR-transfected cells in flow cytometry test.
Preparation:	Affinity Ni-NTA
Applications:	FACS
Storage:	An unopened vial can be stored at 4°C for 2 weeks or at -20°C and below for six months. This stock solution should be aliquoted and stored at ≤ -70°C to minimize the freeze/thaw cycles.
Stability:	6 Months
RefSeq:	NP_001121068
Locus ID:	2214
UniProt ID:	P08637

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Summary: CD16a (FCGR3A) and its homolog CD16b are receptors for the Fc portion of human IgG. In contrast to CD64, which is a high affinity Fc binding protein, both CD16a and CD16b can bind Fc portion of human IgG with relative low affinity. Human CD16a is expressed mainly on natural killer cells, macrophages, T cells, and monocytes. While human CD16b is expressed on Neutrophils and eosinophils. In human cells, a single nucleotide polymorphism (T230A) creates a high binding (176V) and a low binding (176F) variant. Clinically, mutations in CD16a have been linked to vulnerability to viral infections, alloimmune neonatal neutropenia, and systemic lupus erythematosus.

Protein Families: FACS

Protein Pathways: Fc gamma R-mediated phagocytosis, Natural killer cell mediated cytotoxicity, Systemic lupus erythematosus