

Product datasheet for **TP721247**

CD16 (FCGR3A) Human Recombinant Protein

Product data:

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|---------------------------------------|--|
| Product Type: | Recombinant Proteins |
| Description: | Biotinylated Human CD16a Protein (C-His-Avi, 176V) |
| Species: | Human |
| Expression Host: | HEK293 |
| Expression cDNA Clone or AA Sequence: | Gly17-Gln208 |
| Tag: | C-His-Avi |
| Predicted MW: | The protein has the predicted molecular weight of 25.5 kDa and migrates at approximately 40-50 kDa on SDS-PAGE with DTT-reduced condition. |
| Concentration: | 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is bottled at lot specific concentration. |
| Purity: | >90% |
| Conjugation: | Biotin |
| Buffer: | 1xPBS buffer, pH7.4 |
| 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.

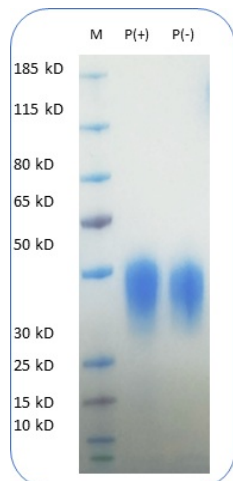
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| Preparation: | Affinity Ni-NTA |
| Applications: | ELISA |
| Storage: | An unopened vial can be stored at 4°C for 2 weeks or at -20°C and below for six months. This stock solution should be aliquoted and stored at ≤ -70°C to minimize the freeze/thaw cycles. |
| Stability: | 6 Months |
| RefSeq: | NP_001121068 |
| Locus ID: | 2214 |
| UniProt ID: | P08637 |



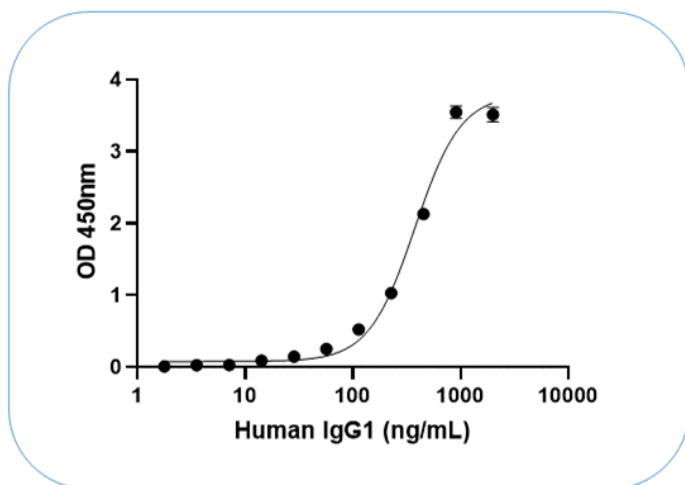
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Summary:

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.

Product images:


Biotinylated Human CD16a protein (C-His-Avi) is coated at 8ug/mL (100u/well). Human IgG1 can bind human CD16a protein in the dose dependant manner. The EC50 is about 100-400 ng/mL.



Biotinylated Human CD16a protein (C-His-Avi) on SDS-PAGE under reducing condition P(+) and non-reducing condition P(-) . The purity of this protein appears to be greater than 95% based on Coomassie-blue staining.