Recombinant Mouse CD64/FCGR1 Protein (His Tag)

Catalog Number: PKSM040932

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

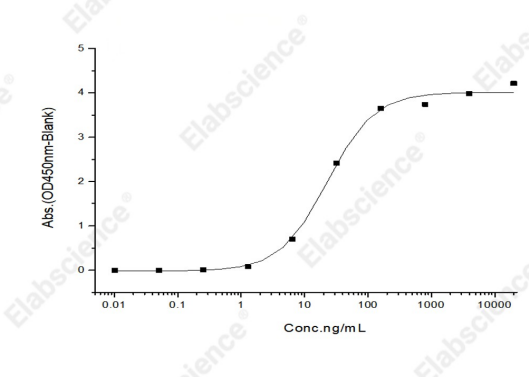
Description

Species	Mouse
Source	HEK293 Cells-derived Mouse CD64/FCGR1 protein Met 1-Pro 297, with an C-terminal His
Calculated MW	32 kDa
Observed MW	45-50 kDa
Accession	NP_034316.1
Bio-activity	Immobilized mouse CD64-His at 10 μg/ml (100 μl/well) can bind biotinylated human IgG1, The EC_{50} of biotinylated human IgG1 is 0.07-0.17 μg/ml.

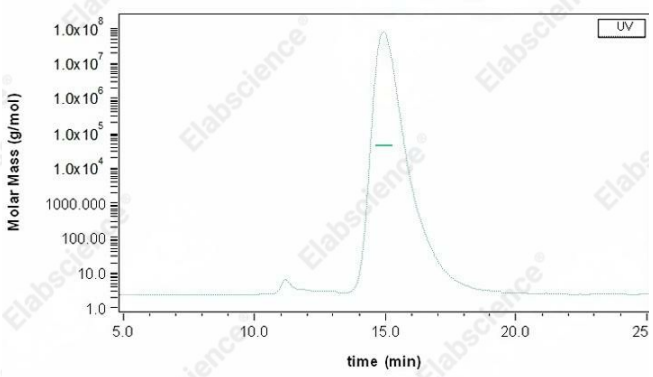
Properties

Purity	> 97% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, 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 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



Immobilized Rituximab (IgG1) at 1 μg/mL can bind Mouse FcγRI / CD64 recombinant protein (Cat: PKSM040932), the EC_{50} is 16-35 ng/mL.



The purity of Mouse CD64 / FCGR1 Protein (His Tag) (Cat: PKSM040932) is more than 95% and the molecular weight of this protein is around 40-50 kDa verified by SEC-MALS.

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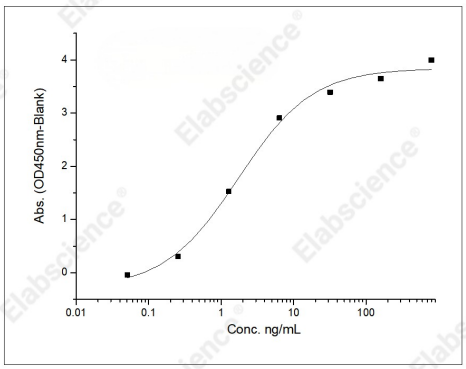

Immobilized Anti-CD3 antibody, mouse IgG2a at 2 μg/mL (100 μL/well) can bind Recombinant Mouse CD64 / FCGR1 Protein (His Tag) (Cat: PKSM040932), the EC_{50} is 0.8-2.4 ng/mL(QC tested).

Background

High affinity immunoglobulin gamma Fc receptor I, also known as FCGR1 and CD64, is an integral membraneglycoprotein and a member of the immunoglobulin superfamily. CD64 is a high affinity receptor for the Fc region of IgG gamma and functions in both innate and adaptive immune responses. Receptors that recognize the Fc portion of IgG function in the regulation of immune response and are divided into three classes designated CD64, CD32, and CD16. CD64 is structurally composed of asignal peptidethat allows its transport to the surface of a cell, threeextracellularimmunoglobulin domainsof the C2-type that it uses to bind antibody, a hydrophobictransmembrane domain, and a short cytoplasmic tail. CD64 isconstitutivelyfound on only macrophages and monocytes, but treatment of polymorphonuclear leukocyteswith cytokines likeIFNγandG-CSFcan induce CD64 expression on these cells. The inactivation of the mouse CD64 resulted in a wide range of defects in antibody Fc-dependent functions. Mouse CD64 is an early participant in Fc-dependent cell activation and in the development of immune responses.

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