

## Recombinant Mouse CD64/FCGR1 Protein (His&AVI Tag), Biotinylated

Catalog Number: PKSM040877

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

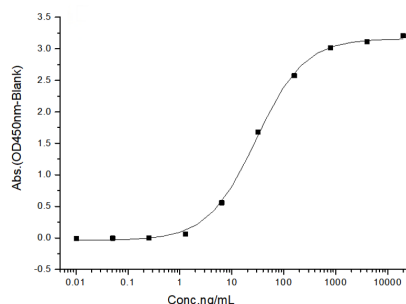
### Description

<b>Species</b>	Mouse
<b>Source</b>	HEK293 Cells-derived Mouse CD64/FCGR1 protein Met 1-Pro 297, with an C-terminal His & Avi
<b>Calculated MW</b>	34.3 kDa
<b>Observed MW</b>	50-55 kDa
<b>Accession</b>	NP_034316.1
<b>Bio-activity</b>	1. Immobilized Rituximab (IgG1) at 1 µg/mL can bind Biotinylated Mouse CD64 recombinant protein, the EC <sub>50</sub> is 20-50 ng/mL. 2. Labeling ratio of biotin to protein is 0.7-1 by the HABA assay.

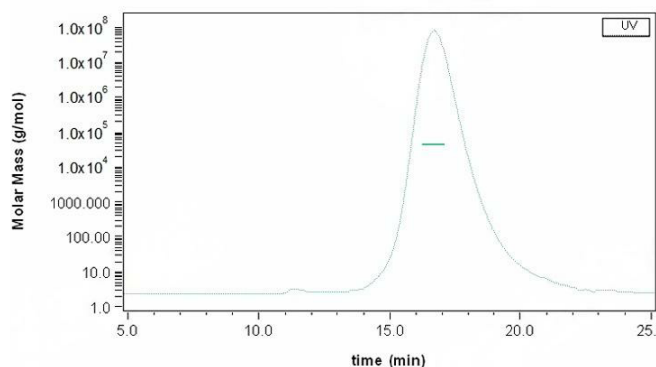
### Properties

<b>Purity</b>	> 90 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	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.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



Immobilized Rituximab (IgG1) at 1 µg/mL can bind Biotinylated Mouse FcγRI / CD64 recombinant protein (His & Avi Tag) (Cat. PKSM040877), the EC<sub>50</sub> is 20-50 ng/mL.



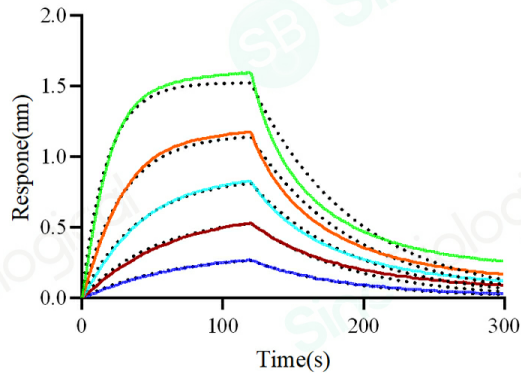
The purity of Mouse CD64 / FCGR1 Protein (His & AVI Tag), Biotinylated (Cat: PKSM040877) is more than 95% and the molecular weight of this protein is around 41-51 kDa verified by SEC-MALS.

### For Research Use Only

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Loaded Biotinylated Mouse FcγRI / CD64 recombinant protein (His & Avi Tag) (Cat. PKSM040877) on SA Biosensor, can bind Bevacizumab (IgG1) with an affinity constant of 0.66 μM as determined in a BLI assay (Sartorius Octet Red384).

## 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 a signal peptidethat allows its transport to the surface of a cell, threeextracellularimmunoglobulin domains of the C2-type that it uses to bind antibody, a hydrophobictransmembrane domain, and a short cytoplasmic tail. CD64 is constitutivelyfound 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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