

## Recombinant Rat CD14 Protein(His Tag)

**Catalog Number:** PDMR100062

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

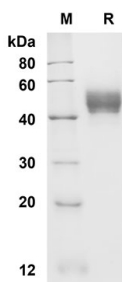
### Description

<b>Species</b>	Rat
<b>Source</b>	Mammalian-derived Rat CD14 proteins Ser18-Tyr341,with C-terminal His
<b>Calculated MW</b>	35.5 kDa
<b>Observed MW</b>	45 kDa
<b>Accession</b>	Q63691
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 90% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU/mg 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 a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Data



SDS-PAGE analysis of Rat CD14 proteins , 2µg/lane of Recombinant Rat CD14 proteins was resolved with SDS-PAGE under reducing conditions , showing bands at 45 KD

### Background

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The cluster of differentiation (CD) system is commonly used as cell markers in immunophenotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules associating with an the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion. Cluster of differentiation 14 (CD14) is a member of the CD system. It takes its name from its inclusion in the CD molecule surface marker proteins. CD14 exists in two forms: a form anchored into the membrane or a soluble form. CD14 was found expressed in macrophages, neutrophil granulocyte and dendritic cells. The major function is to serve as a co-receptor (along with an TLR4 and MD-2) for the bacterial lipopolysaccharide (LPS) and other pathogen-associated molecular patterns.