

# Mouse CD180 / RP105 Protein (His Tag)

Catalog Number: 50491-M08H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

F630107B15; Ly78; RP105

### Protein Construction:

A DNA sequence encoding the mouse CD180 (NP\_032559.2) extracellular domain (Met 1-Ser 626) was expressed, fused with a polyhistidine tag at the C-terminus.

**Source:** Mouse

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 92 % as determined by SDS-PAGE

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Thr 21

### Molecular Mass:

The recombinant mouse CD180 consists of 617 amino acids and predicts a molecular mass of 69.4 kDa. As a result of glycosylation, the apparent molecular mass of rm CD180 is approximately 80 kDa in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

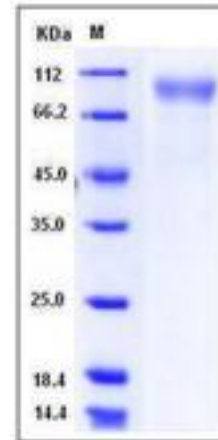
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

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 which associating with 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. CD180, also known as RP105, is a B-cell surface molecule belonging to the family of pathogen receptors, Toll-like receptors (TLR). CD180 has an extracellular leucine-rich repeats and a short cytoplasmic tail. CD180 / RP105 interact with an extracellular molecule named MD1 and then together form the cell surface receptor complex RP105 / MD1 which induces B-cell activation in humans and mice, leading to proliferation and up-regulation of a costimulatory molecule, B7.2 / CD86. CD180 / RP105 also has a role in LPS response because B cells lacking RP105 show hyporesponsiveness to LPS.

## References

1. Zola H, *et al.* (2007) CD molecules 2006-human cell differentiation molecules. *J Immunol Methods.* 318 (1-2): 1-5.
2. Ho IC, *et al.* (2009) GATA3 and the T-cell lineage: essential functions before and after T-helper-2-cell differentiation. *Nat Rev Immunol.* 9 (2): 125-35.
3. Matesanz-Isabel J, *et al.* (2011) New B-cell CD molecules. *Immunology Letters.* 134 (2): 104-12.

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