

# Mouse CD59a / Protectin / MAC-IP Protein (Fc Tag)

Catalog Number: 50724-M02H



Sino Biological  
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## General Information

### Gene Name Synonym:

AA987121; Cd59; protectin; RP24-297H17.1

### Protein Construction:

A DNA sequence encoding the mouse CD59a (NP\_001104530.1) (Met 1-Lys 95), without the pro peptide, was fused with the Fc region of human IgG1 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:** Leu 24

### Molecular Mass:

The secreted recombinant mouse CD59a/Fc is a disulfide-linked homodimer. The reduced monomer comprises 313 amino acids and has a calculated molecular mass of 35.4 kDa. As a result of glycosylation, the recombinant protein migrates as an approximately 42 kDa band 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:

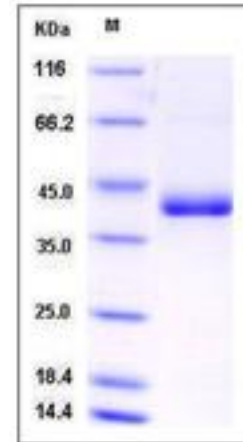
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Protectin, a complement regulatory protein, also known as CD59, or MIRL (membrane inhibitor of reactive lysis) is a small protein that inhibits the complement membrane attack complex by binding C5b678 and preventing C9 from binding and polymerizing. The amino-terminal 25 amino acids represented a typical signal peptide sequence and the carboxy-terminal hydrophobic amino acids were characteristic for phosphatidylinositol-anchored proteins. It was found that the CD59/Protectin antigen is a small protein sometimes associated with larger components (45 and 80 kD) in urine. CD59/Protectin antigen was released from the surface of transfected COS cells by phosphatidylinositol-specific phospholipase C, demonstrating that it is attached to the cell membrane by means of a glycolipid anchor; it is therefore likely to be absent from the surface of affected erythrocytes in the disease paroxysmal nocturnal hemoglobinuria.

## References

1. Huang Y, *et al.* (2006) Defining the CD59-C9 binding interaction. *J Biol Chem.* 281 (37): 27398-404.
2. Sawada R, *et al.* (1990) Isolation and expression of the full-length cDNA encoding CD59 antigen of human lymphocytes. *DNA Cell Biol.* 9(3): 213-20.
3. Philbrick WM, *et al.* (1990) The CD59 antigen is a structural homologue of murine Ly-6 antigens but lacks interferon inducibility. *Eur J Immunol.* 20(1): 87-92.