

# Recombinant Mouse CD6 Protein

Catalog No.: RP03283 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Mouse	12511	Q91WN5

### Tags

C-His

### Synonyms

CD6 antigen; Cd6; CD6

## Product Information

Source	Purification
HEK293 cells	> 90% by SDS-PAGE.

Calculated MW	Observed MW
42.6 kDa	60-70 kDa

### Endotoxin

< 1.0 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

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## Background

CD6 is a type I transmembrane glycoprotein and contains three extracellular SRCR domains. It is expressed on thymocytes, T cells, a subset of B cells, and on certain regions of the brain. Mouse CD6 is a 665 amino acid (aa) protein that includes a 16 aa signal sequence, a 382 aa extracellular domain, a 21 aa transmembrane segment, and a 246 aa cytoplasmic region. CD6 appears to play a role as both a co-stimulatory molecule in T cell activation and as an adhesion receptor. Studies demonstrating a mitogenic effect for T cells with some CD6-specific monoclonal antibodies, in conjunction with either accessory cells or PMA and anti-CD2 mAb, support the concept of CD6 as a co-stimulatory molecule. Other studies have demonstrated an adhesive role for CD6. It has been demonstrated to bind the activated leukocyte cell adhesion molecule (ALCAM, CD166).

## Basic Information

### Description

Recombinant Mouse CD6 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Met1-Gly396) of mouse CD6 (Accession #Q91WN5) fused with His tag at the C-terminus.

### Bio-Activity

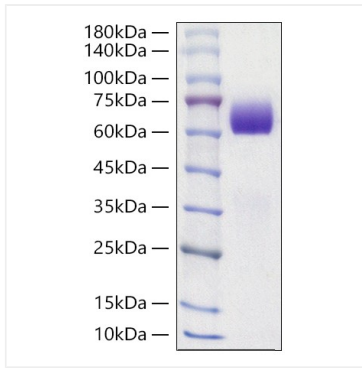
Measured by the ability of the immobilized protein to support the adhesion of Jurkat human acute T cell leukemia cells. When  $8 \times 10^4$  cells/well are added to mCD6-His coated plates (5 μg/mL and 100 μL/well) in the presence of 10 μg/mL PHA, approximately >45% cells will adhere specifically after 60 minutes at 37°C.

### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80°C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

## Validation Data

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Recombinant Mouse CD6 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 60-70 kDa.