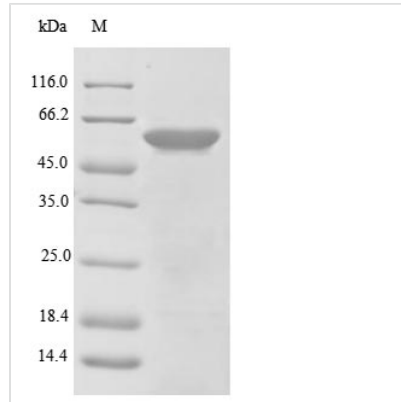




Recombinant Mouse C-type lectin domain family 18 member A (Clec18a)

Product Code	CSB-EP759740MO
Abbreviation	Recombinant Mouse Clec18a protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q7TSQ1
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	MTGAEEWKLSMGLEDTPARLHEHGEASWTAERSHVCSIRQANDSAGALPV AGKPEPMARSLASAPVSPWHHMDRGSTTPAKARSHSASYHCPSSSQICVPG VGSPSAGYGDVPGASGHRPNLLSWPPALSRKESFLILTAHNRLRSRVHPPAA NMQRMDWSESLAQLAEARAALCVTSVTPNLASTPGHNSHVGNVQLMPMG SASFVEVVNLWFAEGLQYRHGDAECAHNATCAHYTQLVWATSSQLGCGRQP CFVDQEAMEAFVCAYSPGGNWDINGKTVAPYKKGTWCSLCTARVSGCFKAW DHAGGLCEVPRNPCRMSCRNLGHLNISTCRCHCQPGYTGRYCQVRCVQCV HGQFRKEECSCICDVGYGGAQCATKVGFPFHTCDLRIDGDCFMVSPEADTY GAKMKCQGKGGVLAQIESQKVQDILAFYLGRLETTNEVTDSDFETKNFWIGLT YKAAKDSFRWTTGEHQSFTSFAFGQPDNQGFNGCVEMQASAAFNWNDQRC KTRNRYICQFAQKHYSRWEPGP
Research Area	Others
Source	E.coli
Target Names	Clec18a
Protein Names	Recommended name: C-type lectin domain family 18 member A Alternative name(s): Mannose receptor-like protein
Expression Region	1-534aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	62.6 kDa
Protein Length	Full Length
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Recombinant Mouse C-type lectin domain family 18 member A (Clec18a) is produced in *E. coli* and covers the complete protein sequence from amino acids 1-534. The protein comes with an N-terminal 6xHis-tag and shows greater than 85% purity when analyzed by SDS-PAGE. This reagent is designed for research purposes only and contains minimal endotoxin levels, which appears to make it appropriate for different laboratory studies.

Clec18a belongs to the C-type lectin domain family and seems to play an important role in recognizing carbohydrate structures. Proteins in this family are commonly found in immune response pathways, where they help mediate interactions between cells and pathogens. This makes Clec18a particularly interesting for researchers studying immune system functions and cell signaling. The protein may offer valuable insights into how cells communicate and defend against threats.

Potential Applications

Note: The applications listed below are based on what we know about this protein's biological functions, published research, and experience from experts in the field. However, we haven't fully tested all of these applications ourselves yet. We'd recommend running some preliminary tests first to make sure they work for your specific research goals.

1. Protein-Protein Interaction Studies Using Pull-Down Assays

The N-terminal 6xHis-tagged recombinant mouse Clec18a can be attached to nickel-affinity resins to hunt for potential binding partners in mouse tissue lysates or cell extracts. Since this protein is part of the C-type lectin domain family, it likely interacts with carbohydrate-containing molecules or other proteins that participate in immune recognition pathways. Using the full-length construct (1-534aa) preserves the entire protein structure, which should keep all potential interaction sites available for binding studies. Mass spectrometry analysis of the pulled-down complexes might reveal previously unknown Clec18a-interacting proteins in mouse biological systems.

2. Antibody Development and Validation

This recombinant Clec18a protein works well as an immunogen for creating



mouse-specific antibodies for research applications. The high purity (>85%) and full-length design suggest that resulting antibodies will recognize native epitopes found in endogenous mouse Clec18a. The His-tag makes purification and immobilization straightforward for ELISA-based antibody screening and characterization assays. Researchers could then use these antibodies for Western blotting, immunoprecipitation, or immunofluorescence studies in mouse cell lines and tissues.

3. Structural and Biochemical Characterization Studies

The recombinant protein can be used for biophysical analyses to determine the structural properties and stability of mouse Clec18a. Techniques like circular dichroism spectroscopy, dynamic light scattering, and analytical ultracentrifugation may provide insights into protein folding, oligomerization state, and thermal stability. The His-tag allows for simple purification for these analyses, while the *E. coli* expression system appears to provide adequate protein yields for multiple experimental approaches.

4. Comparative Functional Studies Across Species

This mouse Clec18a protein can be applied in comparative studies alongside similar C-type lectin proteins from other species to understand how function is conserved through evolution. In vitro binding assays using specific carbohydrate substrates or glycoproteins could help clarify species-specific differences in how these proteins recognize their targets. The recombinant protein also allows direct comparison with human or other mammalian Clec18a relatives in side-by-side biochemical assays to identify which functional properties are conserved versus those that have diverged.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.