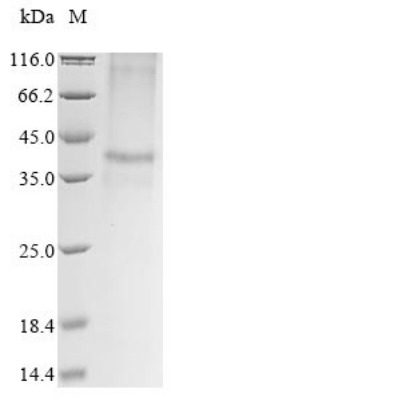
Recombinant Mouse Zinc transporter 8 (Slc30a8)

Product Code	CSB-CF807333MO
Abbreviation	Recombinant Mouse Slc30a8 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.	Q8BGG0
Form	Liquid or Lyophilized powder
Storage Buffer	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	MEFLERTYLVNDQATKMYAFPLDRELRQKPVNKDQCPGDRPEHPEAGGIYHC HNSAKATGNRSSKQAHAKWRLCAASAICFIFMVAEVVGGHVAGSLAILTDAAH LLIDLTSFLLSLFSLWLSSRPPSKRLTFGWYRAEILGALLSVLCIWVVTGVLLYLA CERLLYPDYQIQAGIMITVSGCAVAANIVLTMILHQRNFGYNHKDVQANASVRA AFVHALGDVFQSISVLISALIIYFKPDYKIADPVCTFIFSILVLASTVMILKDFSILLM EGVPKGLSYNSVKEIILAVDGVISVHSLHIWSLTVNQVILSVHVATAASQDSQSV RTGIAQALSSFDLHSLTIQIESAADQDPSCLLCEDPQD
Research Area	Signal Transduction
Source	in vitro E.coli expression system
Target Names	Slc30a8
Expression Region	1-367aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged
Mol. Weight	43.0 kDa
Protein Length	Full Length
Image	



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

Description

Recombinant Mouse Zinc transporter 8 (Slc30a8) is produced through an in vitro E.coli expression system and includes the complete protein spanning amino acids 1 to 367. The protein features an N-terminal 10xHis tag that simplifies purification and detection processes. SDS-PAGE analysis confirms the product achieves purity levels above 85%, which appears to provide reliable performance for research work.

Zinc transporter 8 (Slc30a8) represents a key protein in regulating zinc ion movement across cellular membranes. Its role in maintaining zinc homeostasis seems critical for numerous cellular functions. The protein shows particular importance in pancreatic beta cells, where it likely contributes to insulin secretion and glucose metabolism. This makes it an increasingly important target for metabolic research.

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. Antibody Development and Validation

This full-length recombinant mouse Slc30a8 protein may serve as an effective immunogen for creating polyclonal or monoclonal antibodies targeting zinc transporter 8. The N-terminal 10xHis tag makes purification and immobilization straightforward for antibody screening assays. Researchers can apply this protein in ELISA-based screening to find high-affinity antibodies and confirm their specificity using Western blot analysis. The >85% purity level appears adequate for immunization protocols and follow-up antibody characterization work.

2. Protein-Protein Interaction Studies

His-tagged Slc30a8 protein can be applied in pull-down assays to discover potential binding partners or regulatory proteins that interact with zinc transporter 8. The 10xHis tag permits efficient attachment to nickel-affinity

matrices, allowing researchers to capture interacting proteins from cell lysates or purified protein collections. This strategy might help reveal the molecular mechanisms behind Slc30a8 function and regulation within zinc homeostasis pathways.

3. Biochemical Characterization and Binding Studies

This recombinant protein offers researchers a useful tool for examining Slc30a8's biochemical properties. Studies could include zinc binding affinity and specificity analysis using methods like isothermal titration calorimetry or fluorescence-based assays. The full-length design preserves the complete protein structure, making it suitable for thorough biochemical evaluation. Scientists can also test the protein's stability across different buffer conditions and temperature ranges to refine experimental approaches.

4. Comparative Species Analysis

Mouse Slc30a8 protein can be applied in comparative research with human or other mammalian zinc transporter 8 counterparts to study evolutionary conservation and species-specific variations. Cross-reactivity experiments with antibodies developed against human Slc30a8 may reveal conserved binding sites and functional regions. This application appears particularly useful for researchers conducting translational studies where mouse models help explain human zinc transporter biology.

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.