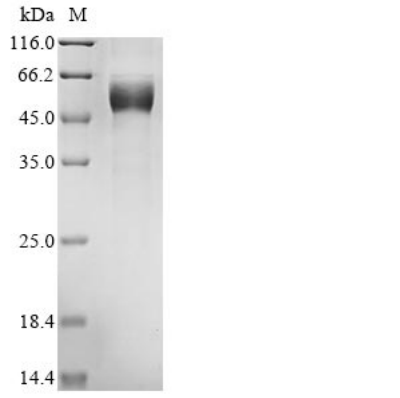
Recombinant Mouse Heme-binding protein 1 (Hebp1)

Product Code	CSB-MP886444MO
Abbreviation	Recombinant Mouse Hebp1 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.	Q9R257
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	MLGMIRNSLFGSVETWPWQVLSTGGKEDVSYEERACEGGKFATVEVTDKPV DEALREAMPKIMKYVGGTNDKGVGMGMTVPVSFALFPNEDGSLQKKLKVWF RIPNQFQGSPPAPSDESVKIEEREGITVYSTQFGGYAKEADYVAHATQLRTTLE GTPATYQGDVYYCAGYDPPMKPYGRRNE
Research Area	Cardiovascular
Source	Mammalian cell
Target Names	Hebp1
Expression Region	1-190aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	C-terminal hFc1-tagged
Mol. Weight	49.3 kDa
Protein Length	Full Length
Image	



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

Description

Recombinant Mouse Heme-binding protein 1 (Hebp1) comes from a mammalian cell expression system, which appears to support proper protein folding and post-translational modifications. The full-length protein spans amino acids 1 to 190 and includes a C-terminal hFc1 tag that helps with purification and detection. Purity levels reach above 85%, confirmed through SDS-PAGE analysis. This product is strictly for research purposes and cannot be used in clinical settings.

Heme-binding protein 1 (Hebp1) likely plays an important role in how cells handle heme metabolism. Scientists study this protein to understand its involvement in heme transport and regulation—processes that seem essential for keeping cells balanced and functioning properly. Learning how Hebp1 works may shed light on broader biochemical pathways related to heme use and could have implications across various biological contexts.

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 Studies

This recombinant mouse Hebp1 protein works well as an immunogen or standard when developing and testing antibodies against Hebp1. The C-terminal hFc1 tag makes purification and immobilization straightforward for ELISA-based antibody screening and validation work. Since it comes from a mammalian expression system, the protein maintains proper folding and modifications that appear crucial for creating antibodies that recognize native epitopes. The >85% purity should be adequate for immunization protocols and specificity testing.

2. Protein-Protein Interaction Studies

Researchers can use the hFc1-tagged Hebp1 in pull-down assays to find and study potential binding partners or interacting proteins from mouse tissue lysates or cell extracts. The Fc tag allows for efficient capture with Protein A/G

beads, while the mammalian expression system likely preserves the native protein shape needed for normal interactions. Co-immunoprecipitation experiments can help confirm specific protein interactions discovered during initial screening.

3. Biochemical Characterization and Binding Assays

This recombinant protein offers a way to examine Hebp1's biochemical properties, including its reported ability to bind heme through in vitro binding studies. Having purified protein makes it possible to analyze binding kinetics, specificity, and stoichiometry using spectroscopic methods or other biochemical techniques. The mammalian expression system provides what appears to be properly folded protein that retains native binding characteristics—something that seems important for reliable biochemical studies.

4. ELISA-Based Detection and Quantification Assays

The hFc1-tagged Hebp1 can work as a standard or capture reagent in sandwich ELISA setups for detecting and measuring Hebp1 in biological samples. The Fc tag allows for oriented attachment to ELISA plates through anti-Fc antibodies, which may improve both assay sensitivity and consistency. This approach proves particularly valuable when studying Hebp1 expression levels across different mouse tissues or cell types in research settings.

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.