

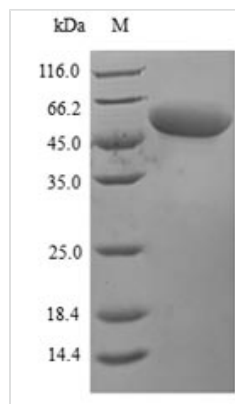


Recombinant Mouse Perforin-1 (PRF1)

Product Code	CSB-YP018668MO
Relevance	Plays a key role in secretory granule-dependent cell death, and in defense against virus-infected or neoplastic cells. Plays an important role in killing other cells that are recognized as non-self by the immune system, e.g. in transplant rejection or some forms of autoimmune disease. Can insert into the membrane of target cells in its calcium-bound form, oligomerize and form large pores. Promotes cytolysis and apoptosis of target cells by facilitating the uptake of cytotoxic granzymes.
Abbreviation	Recombinant Mouse PRF1 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.	P10820
Alias	Cytolysin Lymphocyte pore-forming protein Short name: PFP
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	PCYTATRSECKQKHKFVPGVWMAGEGMDVTTLRRSGSFPVNTQRFLRPDRT CTLCKNSLMRDATQRLPVAITHWRPHSSHQQRNVAAAKVHSTEGVAREAAAN INNDWRVGLDVNPRPEANMRASVAGSHSKVANFAAEKTYQDQYNFNSDTVE CRMYSFRLVQKPPLHLDFKKALRALPRNFNSSTEHAYHRLISSYGTHFITAVDL GGRISVLTALRTCQLTLNGLTADEVGDCLNVEAQVSIGAAQASVSSEYKACEEK KKQHKMATSFHQTYRERHVEVLGGPLDSTHDLLFGNQATPEQFSTWTASLPS NPGLVDYSLEPLHTLLEEQNPKREALRQAISHYIMSRARWQNCSPCRSGQH KSSHDSQCCECQDSKVTNQDCCPRQRGLAHLVVSNFRAEHLWGDYTTATDA YLKVFFGGQEFRTGVVWNNNNPRWTDKMDFENVLLSTGGPLRVQVWDADY GWDDDLLGSCDRSPHSGFHEVTCELNHGRVKFSYHAKCLPHLTGGTCLEYAP QGLLGDPGPNRSGAVW
Research Area	Immunology
Source	Yeast
Target Names	Prf1
Protein Names	Recommended name: Perforin-1 Short name= P1Alternative name(s): Cytolysin Lymphocyte pore-forming protein
Expression Region	21-554aa
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	61.2kDa
Protein Length	Full Length of Mature Protein

Image


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

Description

The fusion tag N-terminal 6xHis tag gene was added to the gene sequence corresponding to the yeast of the mouse Prf1 protein to form the recombinant DNA. The recombinant DNA was cloned into the expression vector and then transfected into the yeast cells for expression. Following purification, the product is the recombinant mouse Prf1 protein carrying N-terminal 6xHis tag. The SDS-PAGE assessed the purity of this recombinant Prf1 protein up to 90%. It had an apparent molecular weight of approximately 55 kDa. It may have applications in immunology studies.

Prf1 is a gene providing instructions for making a protein called Perforin-1 in mouse. In human, perforin-1 is encoded by the PRF1 gene. This gene belongs to complement C6/C7/C8/C9 family. This protein is one of the major cytolytic proteins of cytolytic granules and essentially involved in the granule-dependent killing activities of cytotoxic T lymphocytes (CTLs) and NK cells. PRF1 participates in the establishment of immune homeostasis, elimination of pathogens and tumor surveillance as a definite marker of the killing ability of immune cells. Diseases associated with PRF1 include hemophagocytic lymphohistiocytosis, familial and Aplastic Anemia.

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.