

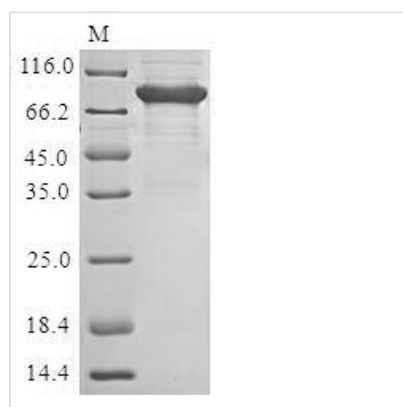


Recombinant Human Perforin-1 (PRF1)

Product Code	CSB-BP018668HU
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 Human 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.	P14222
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	<p> PCHTAARSECKRSHKFVPGAWLAGEGVDVTSLRSGSFPVDTQRFLRPDGT CTLCENALQEGTLQRLPLALTNWRAQGSGCQRHVTRAKVSSTEAVARDAARS IRNDWKVGLDVTPKPTSNVHVSVAGSHSQAANFAAQKTHQDQYSFSTDTVEC RFYSFHVVHTPPLHPDFKRALGDLPHHFNASTQPAYLR LISNYGTHFIRAVELG GRISALTALRTCELALEGLTDNEVEDCLTVEAQVNIGIHGSISAEAKACEEKKKK HKMTASFHQTYRERHSEVVGGHHTSINDLLFGIQAGPEQYSAWVNSLPGSPG LVDYTLPLHVLLDSQDPRREALRRALSQYLTDRARWRDCSRPCPPGRQKSP RDPCQCVCCHGSAVTTQDCCPRQRGLAQLEVTFIQAWGLWGDWFTATDAYVK LFFGGQELRTSTVWDNNNPIWSVRLDFGDVLLATGGPLRLQVWDQDSGRDD DLLGTCDQAPKSGSHEVRCNLNHGHLKFRYHARCLPHLGGGTCLDYVPQMLL GEPPGNRSGAVV </p>
Research Area	Immunology
Source	Baculovirus
Target Names	PRF1
Protein Names	Cytolysin Lymphocyte pore-forming protein PFP
Expression Region	22-555aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal MBP-tagged and C-terminal 6xHis-tagged
Mol. Weight	103.2 kDa
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 Recombinant protein with an MBP-tag at N-terminal and a 6xHis-tag at the C-terminal corresponds to the amino acids 22-555 of Human Perforin-1/PRF1 full-length ORF. This Baculovirus-expressed PRF1 protein got purified by SDS-PAGE and reached up to 85% in purity. On a reducing SDS-PAGE gel, the PRF1 protein migrated to about 105kDa. Customers can get the protein faster because it has stock. The recombinant full-length of mature PRF1 protein may be used for antibody synthesis or in the immunological research related to PRF1.

PRF1 is a Ca^{2+} -dependent glycoprotein mainly expressed by natural killer (NK) cells and CD8-positive T-cells. Polymerization of PRF1 forms channels on the target cell, thus allowing for the passive diffusion of granzymes into the cell. The cellular cytotoxicity mediated by PRF1 is responsible for killing virus-infected and neoplastic cells. Mutations in the PRF1 gene are associated with familial hemophagocytic lymphohistiocytosis (FHL) and various types of lymphomas.

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 $-20^{\circ}\text{C}/-80^{\circ}\text{C}$. 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 $-20^{\circ}\text{C}/-80^{\circ}\text{C}$. The shelf life of lyophilized form is 12 months at $-20^{\circ}\text{C}/-80^{\circ}\text{C}$.