

Perforin 1 (PRF1) Active Protein

Active Perforin 1 (PRF1)

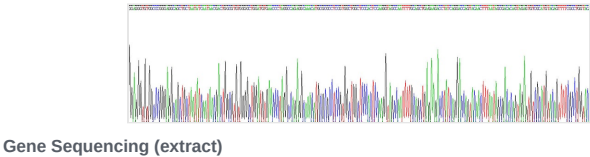
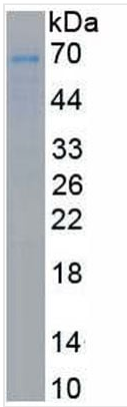
CATALOG # AAA21137	HOST E. coli	APPLICATIONS Cell Culture, Activity Assay
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PRODUCT SYNONYMS

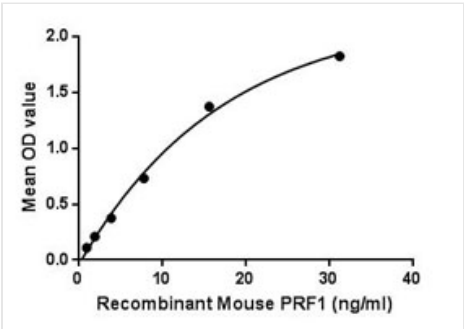
Perforin 1 (PRF1); Active Perforin 1 (PRF1); PRF1; Perforin 1 (PRF1) active protein

PRODUCT SPECIFICATIONS

Host	E. coli
Purity/Purification	>80%
Form/Format	PBS, pH 7.4, containing 0.01% SKL, 5% Trehalose.
Concentration	50 ug/ml (varies by lot)
Applicable Applications for Perforin 1 (PRF1) active protein	Cell Culture, Activity Assay
Application Notes	(May be suitable for use in other assays to be determined by the end user.)
Source	Prokaryotic expression
Residues	Val40~Lys355
Tags	Two N-terminal Tags, His-tag and GST-tag.
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	7.4
Usage	Reconstitute in ddH ₂ O to a concentration ≤0.1 mg/ml. Do not vortex
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months. Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.



SDS-PAGE
Sample: Active recombinant PRF1, Mouse



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TLRRSGSFPV NTQRFRLPDR TCTLCKNSLM RDATQRLPVA ITHMRPHSSH  
CQRNVAAAKV HSTEGVAREA AANINNDWRV GLDVNRPREA NMRASVAGSH  
SKVANFAAEK TYQDQYNFNS DTVECRMYSF RLVQKPLHL DFKKALRALP  
RNFNSSTEHA YHRLISSYGT HFITAVDLGG RISVLTALRT CQLTLNGLTA  
DEVGDCLNVE AQVSIQAQAS VSSEYKACEE KKKQHKMATS FHQTYRERHV  
EVLGGPLDST HDLLFGNQAT PEQFSTWTAS LPSNPLVDY SLEPLHTLLE  
EQNPK
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Sequence Information

Activity
Perforin 1 (PRF1) is a pore forming cytolytic protein found in the granules of cytotoxic T lymphocytes (CTLs) and NK cells. Upon degranulation, perforin binds to the target cell's plasma membrane, and oligomerises in a Ca²⁺ dependent manner to form pores on the target cell. Perforin is thought to act by creating holes in the plasma membrane which triggers an influx of calcium and initiates membrane repair mechanisms. These repair mechanisms bring perforin and granzymes into early endosomes. Besides, Granzyme A (GZMA) has been identified as an interactor of PRF1, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse PRF1 and recombinant mouse GZMA. Briefly, PRF1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µL were then transferred to GZMA-coated microtiter wells and incubated for 2h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-PRF1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of PRF1 and GZMA was shown in Figure 1, and this effect was in a dose dependent manner. Figure. The Binding Activity of PRF1 with GZMA.

NCBI AND UNIPROT INFORMATION

Molecular Weight	Predicted Molecular Mass: 65.3kDa Accurate Molecular Mass: 65kDa as determined by SDS-PAGE reducing conditions.
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For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/e-coli-active-protein/perforin-1-prf1/21137>