

## Active Recombinant Human PRF1 protein, His-GST-tagged

Cat. No. PRF1-25H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human PRF1 protein(Lys32-Phe316), fused with N-terminal His and GST tag, was expressed in E. coli.
<b>Species</b>	Human
<b>Source</b>	E. coli
<b>ProteinLength</b>	32-316 aa
<b>Form</b>	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

<b>Bio-activity</b>	<p>1. 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 Ca<sup>2+</sup> dependent manner to form pores on the target cell. The pore formed allows for the passive diffusion of a family of pro-apoptotic proteases, known as the granzymes, into the target cell. Besides, Calreticulin (CRT) has been identified as an interactor of PRF1, thus a binding ELISA assay was conducted to detect the interaction of recombinant human PRF1 and recombinant human CRT. Briefly, PRF1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µL were then transferred to CRT-coated microtiter wells and incubated for 2h at 37°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</p>
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times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µ stop solution to the wells and read at 450nm immediately. The binding activity of PRF1 and CRT was shown in Figure 2, and this effect was in a dose dependent manner.2. The activity of recombinant PRF1 was measured by lysis of erythrocytes using a hemolysis assay. A general procedure is as follows: two-fold dilute the recombinant human PRF1 with 0.9% NaCl, add 50µL a serial dilution of PRF1, 10µL 0.1M CaCl<sub>2</sub> to each well, then add 50µL 0.25% rabbit erythrocyte (RaE) to each well and mixed gently. Add 10µL 0.9% NaCl to replace CaCl<sub>2</sub> in control wells. The plate is incubated for 20 hours at 37°C, 5% CO<sub>2</sub>. The results are shown in Figure 3. It was obvious that the minimal effective concentration of PRF1 is 12.5µg/mL.

<b>Molecular Mass</b>	62kDa
<b>Purity</b>	> 95%
<b>Storage</b>	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.
<b>Reconstitution</b>	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## GENE INFORMATION

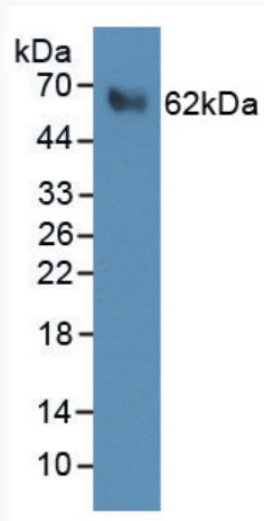
<b>Gene Name</b>	PRF1 perforin 1 (pore forming protein) [ Homo sapiens ]
<b>Official Symbol</b>	PRF1
<b>Synonyms</b>	PRF1; perforin 1 (pore forming protein); perforin-1; HPLH2; P1; Perforin; perforin 1 (preforming protein); PFP; cytolysin; lymphocyte pore forming protein; lymphocyte

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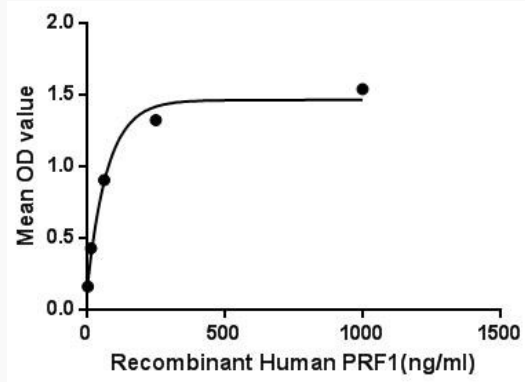
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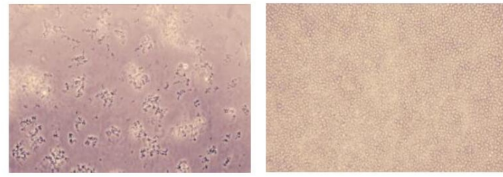
pore-forming protein; FLH2; PFN1; MGC65093


**Gene ID** [5551](#)**mRNA Refseq** [NM\\_001083116](#)**Protein Refseq** [NP\\_001076585](#)**MIM** [170280](#)**UniProt ID** [P14222](#)**SDS-PAGE** Tel: 1-631-559-9269 1-516-512-3133 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127 45-1 Ramsey Road, Shirley, NY 11967, USA

Activity



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