

# Recombinant human PGLYRP1/PGRP-S protein

Catalog Number: ATGP4036

## PRODUCT INFORMATION

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### Expression system

HEK293

### Domain

22-196aa

### UniProt No.

O75594

### NCBI Accession No.

NP\_005082.1

### Alternative Names

PGLYRP, PGRP, PGRP-S, PGRPS, TAG7, TNFSF3L, Peptidoglycan recognition protein 1, peptidoglycan recognition protein short

## PRODUCT SPECIFICATION

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### Molecular Weight

20.5kDa (184aa)

### Concentration

0.25mg/ml (determined by Absorbance at 280nm)

### Formulation

Liquid. In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured by its binding ability in a functional ELISA with Peptidoglycan. The ED50 range  $\leq$  30 ng/ml.

### Tag

His-Tag

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles

## BACKGROUND

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# Recombinant human PGLYRP1/PGRP-S protein

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## Description

PGLYRP1, also known as peptidoglycan recognition protein 1, is an innate immunity protein that plays several important functions in antimicrobial and antitumor defense systems. It acts as a pattern receptor that binds to murein peptidoglycans of gram-positive bacteria and provides bactericidal activity. PGLYRP1 forms an equimolar complex with HSPA1A and induces programmed cell death through apoptosis and necroptosis in tumor cell lines by activating the TNFR1 receptor on the target cell membrane. This protein also interacts with S100A4 and function as a chemoattractant which induces lymphocyte movement. Recombinant human PGLYRP1, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

## Amino acid Sequence

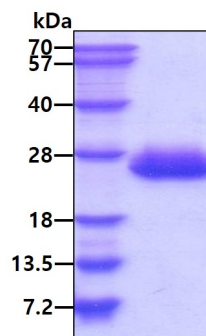
<DGS>QETEDPA CCSPIVPRNE WKALASECAQ HLSLPLRYVV VSHTAGSSCN TPASCQQQAR NVQHYHMKTL  
GWCDVGYNFL IGEDGLVYEG RGWNFTGAHS GHLWNPMSIG ISFMGNYMDR VPTPQAIRAA QLLACGVAQ GALRSNYVLK  
GHRDVQRTLS PGNQLYHLIQ NWPHYRSP<HH HHHH>

## General References

- Lang MF, et al, (2008) Neurosci Lett. 430:138-141.
- Sharma P., et al, (2012) Int J Biochem Mol Biol. 3:86-94.
- Sun Q., et al, (2014) World J Microbiol Biotechnol. 30:263-270.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

### Biological Activity

Peptidoglycan is coated at 10 ug/ml (100 ul/well) can bind Human PGLYRP1. The ED50 range  $\leq$  30 ng/ml.

