Data Sheet (Cat.No.TMPH-00292)

TargetMol

PGLYRP1 Protein, Bovine, Recombinant (His & Myc)

General Information

Synonyms:	PGLYRP;PGRP;Peptidoglycan recognition protein 1;Oligosaccharide-binding protein (OBP); Peptidoglycan recognition protein short (PGRP-S);PGLYRP1
Protein Construction:	22-190 aa
Species:	Bovine
Expression Host:	E. coli
Accession:	Q8SPP7
Molecular Weight:	26.3 kDa (predicted)
AA Sequence:	QDCGSIVSRGKWGALASKCSQRLRQPVRYVVVSHTAGSVCNTPASCQRQAQNVQYYHVRERGWCDVGYN FLIGEDGLVYEGRGWNTLGAHSGPTWNPIAIGISFMGNYMHRVPPASALRAAQSLLACGAARGYLTPNYEVK GHRDVQQTLSPGDELYKIIQQWPHYRRV

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Innate immunity protein that plays several important functions in antimicrobial and antitumor defense systems. Acts as a pattern receptor that binds to murein peptidoglycans (PGN) of Gram-positive bacteria and thus provides

bactericidal activity. Forms an equimolar complex with heat shock protein HSPA1A and induces programmed cell death through apoptosis and necroptosis in tumor cell lines by activating the TNFR1 receptor on the target cell membrane. In addition, acts in complex with the Ca(2+)-binding protein S100A4 as a chemoattractant able to induce lymphocyte movement. Mechanistically, this complex acts as a ligand of the chemotactic receptors CCR5 and CXCR3 which are present on the cells of the immune system. Promotes also the activation of lymphocytes that become able to kill virus-infected cells as well as tumor cells by modulating the spectrum of their target-cell specificity. Induction of cytotoxicity on monocyte surface requires interaction with TREM1 receptor.

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