# biotechne

## **Recombinant Mouse PGLYRP1/PGRP-S**

### His-tag

Catalog Number: 2696-PGB

RDSYSTEMS	

DESCRIPTION	
Source	Mouse myeloma cell line, NS0-derived mouse PGLYRP1/PGRP-S protein Cys17-Glu182, with a C-terminal 6-His tag Accession # O88593.1
N-terminal Sequence Analysis	Cys17
Predicted Molecular Mass	20 kDa

SPECIFICATIONS	
SDS-PAGE	18-21 kDa, under reducing conditions.
Activity	Measured by its binding ability in a functional ELISA. When Peptidoglycan is immobilized at 5 μg/mL (100 μL/well), Recombinant Mouse PGLYRP1/PGRP-S His-tag (Catalog # 2696-PGB) binds with an ED <sub>50</sub> of 0.400-4.80 ng/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in MOPS and NaCl with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE		
Reconstitution	Reconstitute at 200 μg/mL in PBS.	
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.	
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.	
	<ul> <li>12 months from date of receipt, -20 to -70 °C as supplied.</li> </ul>	
	1 month, 2 to 8 °C under sterile conditions after reconstitution.	
	<ul> <li>3 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>	



Rev. 3/28/2023 Page 1 of 2



**Global** bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956 USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373 Europe | Middle East | Africa TEL +44 (0)1235 529449

# bio-techne<sup>®</sup>

## **Recombinant Mouse PGLYRP1/PGRP-S**

### **R**DSYSTEMS

His-tag

Catalog Number: 2696-PGB

#### BACKGROUND

The mouse PGRP family comprises four peptidoglycan recognition proteins that may function as innate immunity pattern recognition molecules (1, 2). Termed PGRP-L, PGRP-Ia, PGRP-Ia and PGRP-S, they are all products of separate genes, and all are named for the relative length of their translated product (3). PGRP-L (for long) is 530 amino acids (aa) in length, while PGRP-Ia and Iβ are intermediate (I) in length at 347 aa and 374 aa, respectively, and PGRP-S is shortest at 182 aa in length (3, 4). All mouse PGRPs bind peptidoglycan and Gram-positive bacteria, and all have at least three C-terminal PGRP domains at variable sites that are highly conserved from insects to mammals (3). Mouse PGRP-S, the first described member of the family, is an 18 kDa secreted protein associated with neutrophils (4, 5). The mature molecule is 166 aa in length and presumably contains three variably-sized peptide-carbohydrate recognition sequences. Mouse PGRP-S is 86%, 69% and 72% aa identical to rat, bovine and human mature PGRP-S, respectively. Studies with PGRP-S deficient mice indicate that knock-out mice have increased susceptibility to infections with low (but not high) pathogenicity bacteria. Neutrophils from knock-out mice exhibit normal phagocytosis of bacteria but are defective in intracellular killing and digestion of nonpathogenic bacteria (5). The three longer PGRP members are all membrane-bound molecules that contain two membrane-spanning segments. Both the N- and C-termini are depicted as being extracellular with a joining cytoplasmic domain. All three transmembrane forms show at least one PGRP domain on the C-terminal extracellular region; other PGRP domains are variably distributed over their two extracellular and one cytoplasmic region (3).

#### References:

- 1. Girardin, S.E. and D.J. Philpott (2004) Eur. J. Immunol. 34:1777.
- 2. Steiner, H. (2004) Immunol. Rev. 198:83.
- 3. Kiselev, S.L. *et al.* (1998) J. Biol. Chem. **273**:18633.
- 4. Kang, D. et al. (1998) Proc. Natl. Acad. Sci. USA 95:10078.
- 5. Dziarski, R. et al. (2003) Blood 102:689.

Rev. 3/28/2023 Page 2 of 2



**Global** bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956 USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373 Europe | Middle East | Africa TEL +44 (0)1235 529449