# Human PGLYRP1/PGRP-S Antibody

Monoclonal Mouse $IgG_{2B}$ Clone # 1040002

Catalog Number: MAB25901

## DESCRIPTION

| | |
|---|---|
| **Species Reactivity** | Human |
| **Specificity** | Detects human PGLYRP1/PGRP-S in direct ELISAs. |
| **Source** | Monoclonal Mouse $IgG_{2B}$ Clone # 1040002 |
| **Purification** | Protein A or G purified from hybridoma culture supernatant |
| **Immunogen** | Mouse myeloma cell line NS0-derived human PGLYRP1/PGRP-S<br>Gln22-Pro196<br>Accession # O75594 |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS. |

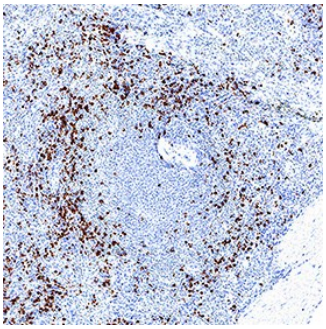
## APPLICATIONS

**Please Note:** *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

| | Recommended Concentration | Sample |
|---|---|---|
| **Immunohistochemistry** | 5-25 µg/mL | Immersion fixed paraffin-embedded sections of human spleen |

## DATA

**Immunohistochemistry**



**PGLYRP1/PGRP-S in Human Spleen.** PGLYRP1/PGRP-S was detected in immersion fixed paraffin-embedded sections of human spleen using Mouse Anti-Human PGLYRP1/PGRP-S Monoclonal Antibody (Catalog # MAB25901) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to lymphocytes. Staining was performed using our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

## PREPARATION AND STORAGE

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|---|---|
| **Reconstitution** | Reconstitute at 0.5 mg/mL in sterile PBS. |
| **Shipping** | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.<br>*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| **Stability & Storage** | **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**<br>• 12 months from date of receipt, -20 to -70 °C as supplied.<br>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>• 6 months, -20 to -70 °C under sterile conditions after reconstitution. |



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## BACKGROUND

The human PGRP family is comprised of four peptidoglycan recognition proteins that may function as innate immunity pattern recognition molecules (1, 2). Termed PGRP-L, PGRP-Iα, PGRP-Iβ 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 576 amino acids (aa) in length, while PGRP-Iα and Iβ are (I) intermediate in length at 341 aa and 373 aa, respectively, and PGRP-S is the shortest at 196 aa in length (3, 4). All human 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). Human PGRP-S, the first described member of the family, is a 28 kDa secreted glycoprotein associated with neutrophils (4). The mature molecule is 175 aa in length and contains three variably-sized peptide-carbohydrate recognition sequences of 15 aa, 29 aa and 49 aa, respectively. Human PGRP-S is 72%, 71% and 70% aa identical to mouse, bovine and rat mature PGRP-S, respectively. Studies with PGRP-S deficient mice indicate that knock-out mice have increased susceptibility to infections with non-pathogenic bacteria. Neutrophils from knock-out mice exhibit normal phagocytosis of bacteria but are defective in intracellular killing and digestion of nonpathogenic bacteria (5). The longer three 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. Liu, C. *et al.* (2001) J. Biol. Chem. **276**:34686.
4. Kang, D. *et al.* (1998) Proc. Natl. Acad. Sci. USA **95**:10078.
5. Dziarski, R. *et al.* (2003) Blood **102**:689.



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