Human PGLYRP1/PGRP-S Antibody

Monoclonal Mouse IgG_{2A} Clone # 1040023

Catalog Number: MAB2590

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human PGLYRP1/PGRP-S in direct ELISAs.
Source	Monoclonal Mouse IgG_{2A} Clone # 1040023
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line, NS0-derived human PGLYRP1/PGRP-S Gln22-Pro196 Accession # O75594
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

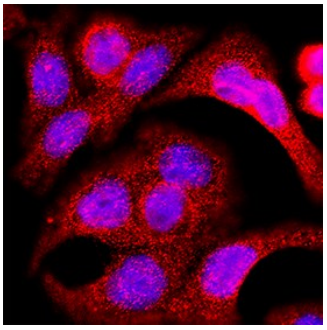
APPLICATIONS

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
Immunocytochemistry	8-25 µg/mL	Immersion fixed HT-29 human colon adenocarcinoma cell line

DATA

Immunocytochemistry



PGLYRP1/PGRP-S in HT-29 Human Cell Line. PGLYRP1/PGRP-S was detected in immersion fixed HT-29 human colon adenocarcinoma cell line using Mouse Anti-Human PGLYRP1/PGRP-S Monoclonal Antibody (Catalog # MAB2590) at 8 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. Staining was performed using our protocol for Fluorescent ICC Staining of Non-adherent Cells.

PREPARATION AND STORAGE

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. *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.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 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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