

PGRP-L (A-5): sc-166825

BACKGROUND

Peptidoglycan recognition protein-L (PGRP-L) is a pattern recognition molecule consisting of 576 amino acid residues. It is the longest and most widely expressed member of the PGRP family. PGRP-L is a Zn²⁺-dependent protein with N-acetylmuramyl-L-alanine-amidase activity that digests peptidoglycan. PGRP-L can form a homodimer and may dimerize with other PGRP proteins. It is a secreted serum protein but is also expressed as a transmembrane protein in liver parenchymal cells binding peptidoglycan and Gram-positive bacteria. PGRP-L deficient mice exhibit slightly lower levels of IL-6 and TNF α but exhibit no obvious phenotypic abnormalities. This suggests that PGRP-L may play a minor role in innate immune functions. In addition, PGRP-L may be a key player in the activation of NOD1, an intracellular pattern recognition protein.

REFERENCES

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3. Liepinsh, E., et al. 2003. NMR structure of *Citrobacter freundii* AmpD, comparison with bacteriophage T7 lysozyme and homology with PGRP domains. *J. Mol. Biol.* 327: 833-842.
4. Lo, D., et al. 2003. Peptidoglycan recognition protein expression in mouse Peyer's Patch follicle associated epithelium suggests functional specialization. *Cell. Immunol.* 224: 8-16.
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6. Wang, Z.M., et al. 2003. Human peptidoglycan recognition protein-L is an N-acetylmuramoyl-L-alanine amidase. *J. Biol. Chem.* 278: 49044-49052.
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CHROMOSOMAL LOCATION

Genetic locus: Pglyrp2 (mouse) mapping to 17 B1.

SOURCE

PGRP-L (A-5) is a mouse monoclonal antibody raised against amino acids 23-322 mapping near the N-terminus of PGRP-L of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PGRP-L (A-5) is recommended for detection of PGRP-L of mouse origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PGRP-L siRNA (m): sc-62789, PGRP-L shRNA Plasmid (m): sc-62789-SH and PGRP-L shRNA (m) Lentiviral Particles: sc-62789-V.

Molecular Weight of PGRP-L: 74 kDa.

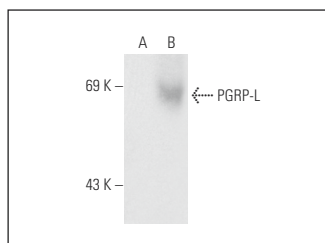
Positive Controls: PGRP-L (m): 293T Lysate: sc-122523 or mouse liver extract: sc-2256.

RECOMMENDED SUPPORT REAGENTS

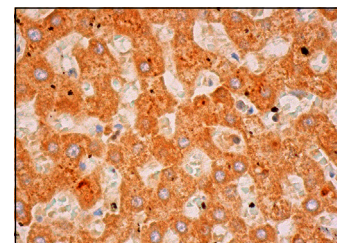
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PGRP-L (A-5): sc-166825. Western blot analysis of PGRP-L expression in non-transfected: sc-117752 (A) and mouse PGRP-L transfected: sc-122523 (B) 293T whole cell lysates.



PGRP-L (A-5): sc-166825. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.