



## PGRP-L (G-18): sc-54943

### 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 Zn<sup>2+</sup>-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 $\alpha$  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. Girardin, S.E., et al. 2003. Peptidoglycan molecular requirements allowing detection by Nod1 and Nod2. *J. Biol. Chem.* 278: 41702-41708.
4. 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.
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7. Xu, M., et al., 2004. Innate immune responses in peptidoglycan recognition protein L-deficient mice. *Mol. Cell. Biol.* 24: 7949-7957.
8. Uehara, A., et al., 2005. Chemically synthesized pathogen-associated molecular patterns increase the expression of peptidoglycan recognition proteins via toll-like receptors, Nod1 and Nod2 in human oral epithelial cells. *Cell. Microbiol.* 7: 675-686.
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### CHROMOSOMAL LOCATION

Genetic locus: PGLYRP2 (human) mapping to 19p13.12; Pglyrp2 (mouse) mapping to 17 B1.

### SOURCE

PGRP-L (G-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PGRP-L of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-54943 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

PGRP-L (G-18) is recommended for detection of PGRP-L of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (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 (h): sc-62788.

Molecular Weight of PGRP-L: 74 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### 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.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.