

PGRP-S (S-14): sc-55745

BACKGROUND

Peptidoglycan recognition proteins (PGRPs) are molecules that recognize peptidoglycan, a large component in bacterial cell walls. In insects, PGRPs activate antimicrobial pathways and in mammals PGRPs function as antibacterial neutrophil proteins. PGRP-L halts bacterial growth by acting as an alanine amidase, an enzyme that hydrolyzes the amide bond of bacterial peptidoglycan. PGRP- α and PGRP- β are also members of the PGRP family that help recognize bacteria by binding to peptidoglycan and Gram-positive bacteria, but they do not have amidase activity. PGRP-S participates in intracellular killing of Gram-positive bacteria by stimulating two antimicrobial defense systems, the prophenoloxidase cascade and the antimicrobial peptides through Toll receptors.

REFERENCES

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5. Wang, Z.M., Li, X., Cocklin, R.R., Wang, M., Wang, M., Fukase, K., Inamura, S., Kusumoto, S., Gupta, D. and Dziarski, R. 2003. Human peptidoglycan recognition protein-L is an N-acetylmuramoyl-L-alanine amidase. *J. Biol. Chem.* 278: 49044-49052.

CHROMOSOMAL LOCATION

Genetic locus: PGLYRP1 (human) mapping to 19q13.32.

SOURCE

PGRP-S (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PGRP-S of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-55745 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PGRP-S (S-14) is recommended for detection of PGRP-S 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).

PGRP-S (S-14) is also recommended for detection of PGRP-S in additional species, including equine.

Suitable for use as control antibody for PGRP-S siRNA (h): sc-62790, PGRP-S shRNA Plasmid (h): sc-62790-SH and PGRP-S shRNA (h) Lentiviral Particles: sc-62790-V.

Molecular Weight of PGRP-S: 22 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 or our catalog for detailed protocols and support products.