

# PGP (S-15): sc-241607

## BACKGROUND

PGP (phosphoglycolate phosphatase), also known as PGPase, is a 321 amino acid enzyme belonging to the HAD-like hydrolase superfamily and the CbbY/cbbZ/gph/yieH family. PGP is detected in all tissues including red cells, lymphocytes and cultured fibroblasts, with highest activity found in skeletal and cardiac muscle. PGP is considered an important regulatory enzyme on oxygen transport by indirectly affecting the level of red cell 2,3-diphosphoglycerate. The gene encoding PGP maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: PGP (human) mapping to 16p13.3; Pgp (mouse) mapping to 17 A3.3.

## SOURCE

PGP (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PGP of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-241607 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PGP (S-15) is recommended for detection of PGP of mouse, rat and 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).

PGP (S-15) is also recommended for detection of PGP in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PGP siRNA (m): sc-108319, PGP shRNA Plasmid (m): sc-108319-SH and PGP shRNA (m) Lentiviral Particles: sc-108319-V.

Molecular Weight of PGP: 34 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.



Try **PGP (E-10): sc-390883**, our highly recommended monoclonal alternative to PGP (S-15).