Product Datasheet

PGP Antibody

Catalog No: #48324

Package Size: #48324-1 50ul #48324-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	PGP Antibody
Host Species	Mouse
Clone No.	4G2
Purification	ProA affinity purified
Applications	WB, IP, IF, IHC(P)
Species Reactivity	Human;Mouse;Rat
Immunogen Description	peptide
Conjugates	Unconjugated
Other Names	PGP antibody PGP_HUMAN antibody PGPase antibody Phosphoglycolate phosphatase antibody
Accession No.	Swiss-Prot#:A6NDG6
Calculated MW	34kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at 4°C

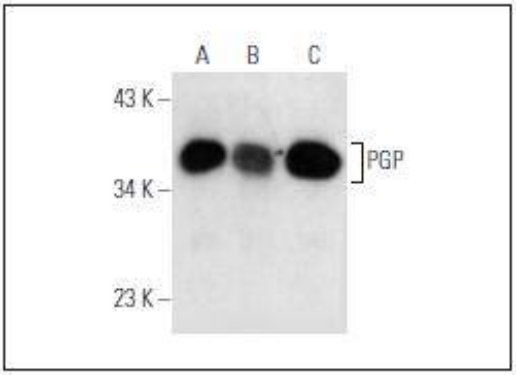
Application Details

WB: 1:100-1:1,000

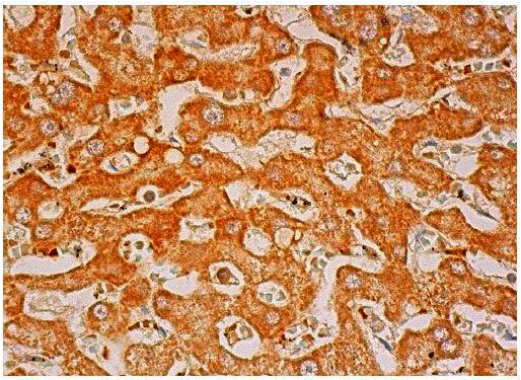
IHC: 1:50-1:500

IP: 1-2 μg per 100-500 μg of total protein(1 ml of cell lysate)

Images



Western blot analysis of PGP expression in human heart (A) and human skeletal muscle (B) tissue extracts and K-562 whole cell lysate (C).



Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

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

1. Somoza, R. and Beutler, E. 1983. Phosphoglycolate phosphatase and 2,3-diphosphoglycerate in red cells of normal and anemic subjects. Blood 62: 750-753.
2. Zecher, R., et al. 1982. Purification, isolation and characterization of a phosphoglycolate phosphatase isoenzyme from human erythrocytes. Int. J. Biochem. 14: 775-781.

Note: This product is for in vitro research use only and is not intended for use in humans or animals.