10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PGP Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9853a

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	A6NDG6
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24904
Calculated MW	34006
Antigen Region	33-62

Additional Information

Gene ID	283871
Other Names	Phosphoglycolate phosphatase, PGP, PGPase, PGP
Target/Specificity	This PGP antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 33-62 amino acids from the N-terminal region of human PGP.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PGP Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

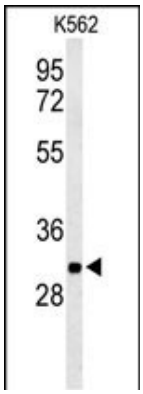
Name	PGP (HGNC:8909)
Function	Phosphatase with activity against multiple substrates (PubMed: 27294321). Acts as a metabolite repair enzyme which eliminates toxic glycolytic side products (PubMed:27294321). Dephosphorylates 2- phosphoglycolate which

	is generated during the repair of oxidative DNA lesions (PubMed:26755581, PubMed:27294321). This controls triosephosphate isomerase activity, glycerolipid partitioning and cell proliferation in the embryo and is required for embryonic development (By similarity). Dephosphorylates 4-phosphoerythronate, a side product which is produced by GAPDH and which inhibits 6-phosphogluconate dehydrogenase (PubMed:27294321). Dephosphorylation of 4- phosphoerythronate prevents the accumulation of high 4- phosphoerythronate levels which would otherwise inhibit the pentose phosphate pathway (PubMed:27294321). Dephosphorylates 2-phospho-L-lactate which is a product of a pyruvate kinase side reaction (PubMed:27294321). This prevents the inhibition of fructose-2,6-bisphosphate production and allows glycolysis to occur (PubMed:27294321). Has glycerol-3-phosphate phosphatase activity, hydrolyzing glycerol-3-phosphate into glycerol and thereby regulating the cellular levels of glycerol-3-phosphate, a metabolic intermediate of glucose, lipid and energy metabolism (PubMed:26755581). Has been shown to have tyrosine-protein phosphatase activity although the physiological relevance is unclear (PubMed:26755581). In vitro, has phosphatase activity toward ADP, ATP, GDP and GTP (By similarity).
Tissue Location	Detected in all tissues including red cells, lymphocytes and cultured fibroblasts (at protein level). The highest activities occur in skeletal muscle and cardiac muscle

References

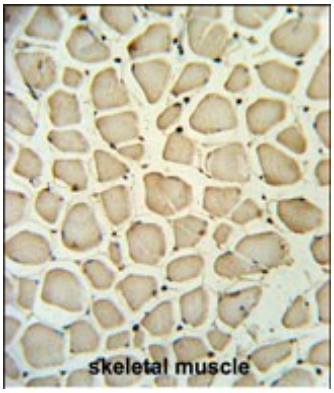
Garcia, M.G., et al. Leuk. Res. 33(2):288-296(2009)
Lin, Y.C., et al. Ther Drug Monit 28(5):668-672(2006)
de Leon, J., et al. J Clin Psychopharmacol 25(5):448-456(2005)
Turzanski, J., et al. Exp. Hematol. 33(1):62-72(2005)

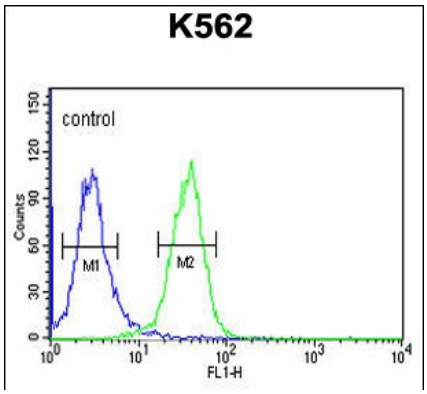
Images



Western blot analysis of PGP Antibody (N-term) (Cat. #AP9853a) in K562 cell line lysates (35ug/lane). PGP (arrow) was detected using the purified Pab.

PGP Antibody (N-term) (Cat. #AP9853a) IHC analysis in formalin fixed and paraffin embedded skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the PGP Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.





PGP Antibody (N-term) (Cat. #AP9853a) flow cytometric analysis of K562 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.