

pyridoxal phosphatase (C-12): sc-48071

BACKGROUND

Pyridoxal phosphatase (PLPase) is an autoantigen comprising 296 amino acids. PLPase catalyzes the dephosphorylation of pyridoxal 5'-phosphate (the active form of vitamin B6) and exhibits a high level of expression various parts of the central nervous system, especially the brain. PLPase activity is catalyzed by haloacid dehalogenase (HAD), and it is the cofactor of both aromatic L-amino acid decarboxylase and glutamate decarboxylase. Autoantibodies against pyridoxal phosphatase show a strong correlation with certain types of cancer.

REFERENCES

- Choi, S.Y., et al. 1987. Brain pyridoxine-5-phosphate oxidase. Modulation of its by reaction with pyridoxal 5-phosphate and analogs. *J. Biol. Chem.* 262: 12013-12017.
- Jang, Y.M., et al. 2003. Human pyridoxal phosphatase. Molecular cloning, functional expression, and tissue distribution. *J. Biol. Chem.* 278: 50040-50046.

CHROMOSOMAL LOCATION

Genetic locus: PDXP (human) mapping to 22q13.1; Pdxp (mouse) mapping to 15 E1.

SOURCE

pyridoxal phosphatase (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of pyridoxal phosphatase 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, Ready P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

pyridoxal phosphatase (C-12) is recommended for detection of pyridoxal phosphatase of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

pyridoxal phosphatase (C-12) is also recommended for detection of pyridoxal phosphatase in additional species, including equine, canine and bovine.

Suitable for use as control antibody for pyridoxal phosphatase siRNA (h): sc-61425, pyridoxal phosphatase siRNA (m): sc-61426, pyridoxal phosphatase shRNA Plasmid (h): sc-61425-SH, pyridoxal phosphatase shRNA Plasmid (m): sc-61426-SH, pyridoxal phosphatase shRNA (h) Lentiviral Particles: sc-61425-V and pyridoxal phosphatase shRNA (m) Lentiviral Particles: sc-61426-V.

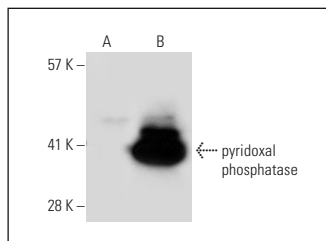
Molecular Weight of pyridoxal phosphatase: 32 kDa.

Positive Controls: pyridoxal phosphatase (h): 293T Lysate: sc-117114.

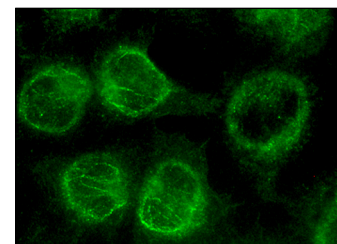
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



pyridoxal phosphatase (C-12): sc-48071. Western blot analysis of pyridoxal phosphatase expression in non-transfected: sc-117752 (A) and human pyridoxal phosphatase transfected: sc-117114 (B) 293T whole cell lysates.



pyridoxal phosphatase (C-12): sc-48071. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and cytoskeletal localization.

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.



Try **pyridoxal phosphatase (F-2): sc-271379** or **pyridoxal phosphatase (H-5): sc-398850**, our highly recommended monoclonal alternatives to pyridoxal phosphatase (C-12).