

pyridoxal phosphatase (D-12): sc-271214

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

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- Bøe, A.S., et al. 2004. Pyridoxal phosphatase system. *Br. J. Cancer* 91: 1508-1514.
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CHROMOSOMAL LOCATION

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

SOURCE

pyridoxal phosphatase (D-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 254-286 at the C-terminus of pyridoxal phosphatase of human origin.

PRODUCT

Each vial contains 200 µg IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-271214 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

pyridoxal phosphatase (D-12) is recommended for detection of pyridoxal phosphatase of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

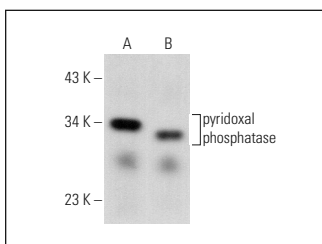
Molecular Weight of pyridoxal phosphatase: 32 kDa.

Positive Controls: pyridoxal phosphatase (h): 293T Lysate: sc-117114, human brain extract: sc-364375 or mouse brain extract: sc-2253.

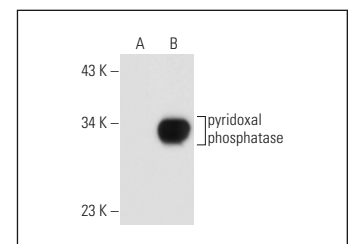
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



pyridoxal phosphatase (D-12): sc-271214. Western blot analysis of pyridoxal phosphatase expression in human brain (A) and mouse brain (B) tissue extracts.



pyridoxal phosphatase (D-12): sc-271214. 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.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.