PNPO (E-8): sc-393561

BACKGROUND

PNPO (pyridoxamine 5'-phosphate oxidase), also known as PDXPO, FLJ10535 or pyridoxine-5'-phosphate oxidase, is a 261 amino acid protein belonging to the pyridoxine 5'-phosphate oxidase family. Encoded by a gene that maps to human chromosome 17q21.32, PNPO catalyzes the oxidation of either pyridoxine 5'-phosphate (PNP) or pyridoxamine 5'-phosphate (PMP) into pyridoxal 5'-phosphate (PLP). PNPO is composed of seven exons and six introns, with all exon/intron junctions containing the GT/AG consensus splicing site. Characteristic of housekeeping genes, PNPO contains Sp1-binding sites and CpG islands in its regulatory region and lacks TATA-like sequences. PNPO binds a single FMN per subunit. Developmentally regulated in both liver and brain, PNPO is also found in skeletal muscle and kidney, with very weak expression detected in lung. Mutations in PNPO may cause PNPO-related neonatal epileptic encephalopathy and may be associated with schizophrenia.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: PNPO (human) mapping to 17q21.32; Pnpo (mouse) mapping to 11 D.

SOURCE

PNPO (E-8) is a mouse monoclonal antibody raised against amino acids 157-261 mapping at the C-terminus of PNPO of human origin.

PRODUCT

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PNPO (E-8) is available conjugated to agarose (sc-393561 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393561 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycocyanin (sc-393561 PE), fluorescein (sc-393561 FITC), Alexa Fluor® 488 (sc-393561 AF488), Alexa Fluor® 546 (sc-393561 AF546), Alexa Fluor® 594 (sc-393561 AF594) or Alexa Fluor® 647 (sc-393561 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393561 AF680) or Alexa Fluor® 790 (sc-393561 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

PNPO (E-8) is recommended for detection of PNPO 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 1:50-1:1500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PNPO siRNA (h): sc-76182. PNPO siRNA (m): sc-76183. PNPO shRNA Plasmid (h): sc-76182-H, PNPO shRNA Plasmid (m): sc-76183-SH, PNPO shRNA (h) Lentiviral Particles: sc-76182-V and PNPO shRNA (m) Lentiviral Particles: sc-76183-V.

Molecular Weight of PNPO: 30 kDa.

Positive Controls: PNPO (m): 293T Lysate: sc-125840, HeLa whole cell lysate: sc-2220 or Hep G2 cell lysate: sc-2227.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG Anti-HRP (sc-516102) or m-IgG Anti-Biotin (sc-516102). Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516241 and Western Blotting Luminal Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG Anti-Alexa Fluor® 546 (sc-393561 AF546), Alexa Fluor® 647 (sc-393561 AF647), Alexa Fluor® 680 (sc-393561 AF680) or Alexa Fluor® 790 (sc-393561 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

DATA

PNPO (E-8) is recommended for detection of PNPO 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 1:50-1:1500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RESEARCH USE

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

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

STORAGE

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