

pyridoxal kinase (C-17): sc-50961

BACKGROUND

Pyridoxal kinase belongs to the pyridoxine kinase family and phosphorylates vitamin B6, a step necessary for the conversion of vitamin B6 to pyridoxal 5' phosphate (PLP), the active form of vitamin B6. PLP acts as a coenzyme and functions to maintain homeostasis. Pyridoxal kinase is a 312 amino acid cytoplasmic protein that may act as a homodimer and is expressed ubiquitously. There are three known isoforms of pyridoxal kinase, and isoform 3 expression is observed in adult testis and spermatozoa. The optimum pH for pyridoxal kinase is between 5.5 and 6.0. PDXK, the gene that encodes the pyridoxal kinase protein, maps to chromosome 21q22.3 and may be a candidate gene for autoimmune polyglandular disease type 1, a genetic disorder that has been mapped to the same region on chromosome 21.

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CHROMOSOMAL LOCATION

Genetic locus: PDXK (human) mapping to 21q22.3; Pdxk (mouse) mapping to 10 C1.

RESEARCH USE

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

SOURCE

pyridoxal kinase (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of pyridoxal kinase 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, sc-50961 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

pyridoxal kinase (C-17) is recommended for detection of pyridoxal kinase 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 kinase (C-17) is also recommended for detection of pyridoxal kinase in additional species, including porcine.

Suitable for use as control antibody for pyridoxal kinase siRNA (h): sc-61423, pyridoxal kinase siRNA (m): sc-61424, pyridoxal kinase shRNA Plasmid (h): sc-61423-SH, pyridoxal kinase shRNA Plasmid (m): sc-61424-SH, pyridoxal kinase shRNA (h) Lentiviral Particles: sc-61423-V and pyridoxal kinase shRNA (m) Lentiviral Particles: sc-61424-V.

Molecular Weight of pyridoxal kinase: 40 kDa.

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 Blotting 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.

STORAGE

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


 MONOS
 Satisfaction
 Guaranteed

Try **pyridoxal kinase (E-2): sc-365173** or **pyridoxal kinase (F-12): sc-390082**, our highly recommended monoclonal alternatives to pyridoxal kinase (C-17).