

PANK1 (S-18): sc-82285

BACKGROUND

The pantothenate kinase (PANK) family of proteins catalyzes the first step in coenzyme A (CoA). Pantothenate kinase 1 (PANK1) is a 598 amino acid member of the pantothenate kinase family that plays a role in the physiological regulation of the intracellular CoA concentration. Localized to the cytoplasm, PANK1 is strongly inhibited by acetyl-CoA and manyl-CoA, as well as by high concentration of non-esterified CoA (CoASH). Four known isoforms of PANK1 exist as a result of alternative splicing events. Of these isoforms, PANK1 α and PANK1 β have been identified as the catalytically active isoforms. Isoform PANK1 α is most highly expressed in brain, heart, kidney, liver, skeletal muscle and kidney. Isoform PANK1 β is detected at much lower levels in kidney, liver, brain and testis and is not detected in heart or skeletal muscle.

REFERENCES

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- Ni, X., et al. 2002. Cloning and characterization of a novel human pantothenate kinase gene. *Int. J. Biochem. Cell Biol.* 34: 109-115.
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CHROMOSOMAL LOCATION

Genetic locus: Pank1 (mouse) mapping to 19 C1.

SOURCE

PANK1 (S-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PANK1 of mouse origin.

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.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-82285 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PANK1 (S-18) is recommended for detection of PANK1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with isoform PANK1-2.

Suitable for use as control antibody for PANK1 siRNA (m): sc-76041, PANK1 shRNA Plasmid (m): sc-76041-SH and PANK1 shRNA (m) Lentiviral Particles: sc-76041-V.

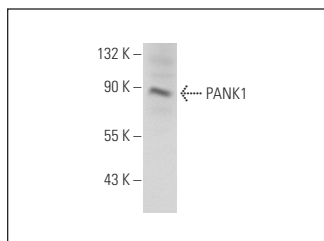
Molecular Weight of PANK1: 60 kDa.

Positive Controls: Sol8 cell lysate: sc-2249.

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



PANK1 (S-18): sc-82285. Western blot analysis of PANK1 expression in Sol8 whole cell lysate.

PROTOCOLS

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