BACKGROUND

Mevalonate kinase (MVK) is an early enzyme in isoprenoid and sterol synthesis. Mevalonate kinase catalyzes the ATP-dependent phosphorylation of mevalonic acid to form mevalonate 5-phosphate. Mevalonate is a key intermediate, and mevalonate kinase a key early enzyme, in isoprenoid and sterol synthesis. Deficiency in MVK activity contributes to mevalonic aciduria and hyperimmunglobulinaemia D/periodic fever syndrome (HIDS). Mevalonic acid accumulates because of failure of conversion to 5-phosphomevalonic acid, which is catalyzed by mevalonate kinase. Mevalonic acid is synthesized from 3-hydroxy-3-methylglutaryl-CoA, a reaction catalyzed by HMG-CoA reductase.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: MVK (human) mapping to 12q24.11.

SOURCE

MVK (D-3) is a mouse monoclonal antibody raised against amino acids 97-396 mapping at the C-terminus of MVK of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

MVK (D-3) is recommended for detection of MVK of 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 1:30-1:300).

Suitable for use as control antibody for MVK siRNA (h): sc-106266, MVK shRNA Plasmid (h): sc-106266-SH and MVK shRNA (h) Lentiviral Particles: sc-106266-V.

Molecular Weight (predicted) of MVK: 42 kDa.

Molecular Weight (observed) of MVK: 43/46 kDa.

Positive Controls: MVK (h): 293T Lysate: sc-112229.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:


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

MVK (D-3): sc-390669. Western blot analysis of MVK expression in non-transfected: sc-117752 (A) and human MVK transfected: sc-112229 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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