**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. Mevalonic acid is a key intermediate, and mevalonate kinase a key enzyme, in isoprenoid and sterol synthesis. Deficiency in MVK activity contributes to mevalonic aciduria and hyperimmunoglobulinemia 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 IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MVK (D-3) is available conjugated to agarose (sc-390669 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390669 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390669 PE), fluorescein (sc-390669 FITC), Alexa Fluor® 488 (sc-390669 AF488), Alexa Fluor® 546 (sc-390669 AF546), Alexa Fluor® 594 (sc-390669 AF594) or Alexa Fluor® 647 (sc-390669 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390669 AF680) or Alexa Fluor® 790 (sc-390669 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**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 1:30-1:3000).

Suitable for use as control antibody for MVK siRNA (h): sc-106266, MVK shRNA Plasmid (h): sc-106266-5H 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, A2058 whole cell lysate: sc-364178 or Caki-1 cell lysate: sc-2224.

**RECOMMENDED SUPPORT REAGENTS**

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


**DATA**

**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.

**PROTOCOLS**

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