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MVD (h): 293T Lysate: sc-159765

BACKGROUND

MVD (mevalonate (diphospho) decarboxylase), also known as MPD (mevalonate pyrophosphate decarboxylase), is a 400 amino acid protein that belongs to the diphosphomevalonate decarboxylase family. Expressed in lung, liver, heart, skeletal muscle, brain, pancreas, placenta and kidney, MVD enzymatically catalyzes the first step in isoprene biosynthesis, namely the ATP-dependent conversion of mevalonate pyrophosphate into isopentenyl pyrophosphate, a cholesterol precursor. MVD exists as a homodimer that simultaneously dehydrates and decarboxylates its substrate while hydrolyzing ATP. As MVD is a crucial enzyme in early cholesterol synthesis, it may be a useful target for drugs that aim to lower serum cholesterol levels.

REFERENCES

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5. Wadhwa, R., Yaguchi, T., Hasan, M.K., Taira, K. and Kaul, S.C. 2003. Mortalin-MPD (mevalonate pyrophosphate decarboxylase) interactions and their role in control of cellular proliferation. *Biochem. Biophys. Res. Commun.* 302: 735-742.
6. Flock, G., Baggio, L.L., Longuet, C. and Drucker, D.J. 2007. Incretin receptors for glucagon-like peptide 1 and glucose-dependent Insulinotropic polypeptide are essential for the sustained metabolic actions of vildagliptin in mice. *Diabetes* 56: 3006-3013.

CHROMOSOMAL LOCATION

Genetic locus: MVD (human) mapping to 16q24.3.

PRODUCT

MVD (h): 293T Lysate represents a lysate of human MVD transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

MVD (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive MVD antibodies. Recommended use: 10-20 µl per lane.

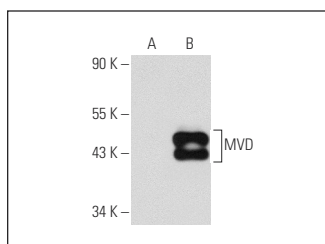
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

MVD (2B5): sc-100559 is recommended as a positive control antibody for Western Blot analysis of enhanced human MVD expression in MVD transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



MVD (2B5): sc-100559. Western blot analysis of MVD expression in non-transfected: sc-117752 (A) and human MVD transfected: sc-159765 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.