

# DHODH (h): 293T Lysate: sc-116990

## BACKGROUND

DHODH (dihydroorotate dehydrogenase), also known as DHODEHase, is a 395 amino acid mitochondrial protein located on the outer surface of the inner mitochondrial membrane. It catalyzes the fourth enzymatic step in *de novo* pyrimidine biosynthesis. *De novo* pyrimidine synthesis is a critical metabolic pathway for nucleic acid synthesis and is a target for various cancer chemotherapy agents. Additionally, DHODH is functionally connected to the respiratory chain, delivering electrons to ubiquinone. DHODH contains a bipartite signal at the N-terminus that regulates passage into the mitochondrial inner membrane. The inhibition of Cox (cytochrome c oxidase) by nitric oxide (NO) indirectly inhibits DHODH activity. The inhibition of DHODH has an immunosuppressive and an antiproliferative effect on diseases such as rheumatoid arthritis.

## REFERENCES

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6. Rawls, J., et al. 2000. Requirements for the mitochondrial import and localization of dihydroorotate dehydrogenase. *Eur. J. Biochem.* 267: 2079-2087.
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8. Baumgartner, R., et al. 2006. Dual binding mode of a novel series of DHODH inhibitors. *J. Med. Chem.* 49: 1239-1247.
9. Zameitat, E., et al. 2007. Functional expression of human dihydroorotate dehydrogenase (DHODH) in pyr4 mutants of *Ustilago maydis* allows target validation of DHODH inhibitors *in vivo*. *Appl. Environ. Microbiol.* 73: 3371-3379.

## CHROMOSOMAL LOCATION

Genetic locus: DHODH (human) mapping to 16q22.2.

## PRODUCT

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

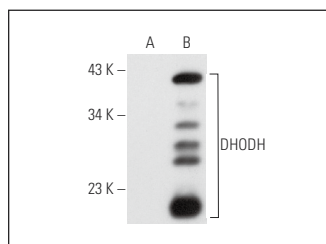
## APPLICATIONS

DHODH (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive DHODH 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.

DHODH (D-6): sc-166377 is recommended as a positive control antibody for Western Blot analysis of enhanced human DHODH expression in DHODH transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## DATA



DHODH (D-6): sc-166377. Western blot analysis of DHODH expression in non-transfected: sc-117752 (A) and human DHODH transfected: sc-116990 (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](http://www.scbt.com) for detailed protocols and support products.