**DHODH (E-8): sc-166348**

### Background
DHODH (dihydroorotate dehydrogenase), also known as DHODhase, 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 passes through 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.

### Chromosomal Location
Genetic locus: DHODH (human) mapping to 16q22.2; DHODH (mouse) mapping to 8 D3.

### Source
DHODH (E-8) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of DHODH of human origin.

### Product
Each vial contains 200 µg IgG₂κ light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DHODH (E-8) is available conjugated to agarose (sc-166348 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166348 HRP), 200 µg/ml, for WB, HCP and ELISA; to either phycoerythrin (sc-166348 PE), fluorescein (sc-166348 FITC), Alexa Fluor® 488 (sc-166348 AF488), Alexa Fluor® 546 (sc-166348 AF546), Alexa Fluor® 594 (sc-166348 AF594) or Alexa Fluor® 647 (sc-166348 AF647), 200 µg/ml, for WB (RGB), IF, HCP (IF) and FCM; and to either Alexa Fluor® 680 (sc-166348 AF680) or Alexa Fluor® 790 (sc-166348 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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### Applications
DHODH (E-8) is recommended for detection of DHODH of mouse, rat and 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 DHODH siRNA (h): sc-77141, DHODH siRNA (m): sc-77142, DHODH shRNA Plasmid (h): sc-77141-SH, DHODH shRNA Plasmid (m): sc-77142-SH, DHODH shRNA (h) Lentiviral Particles: sc-77141-V and DHODH shRNA (m) Lentiviral Particles: sc-77142-V.

Molecular Weight of DHODH: 43 kDa.

Positive Controls: C3H/10T1/2 cell lysate: sc-3801, Jurkat whole cell lysate: sc-2204 or Hep G2 cell lysate: sc-2227.

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

### Data

**DHODH (E-8): sc-166348. Western blot analysis of DHODH expression in Jurkat (A), MCF7 (B), Hep G2 (C), C3H/10T1/2 (D), 3T3-L1 (E) and G3 (F) whole cell lysates.**

**DHODH (E-8): sc-166348. Near-infrared western blot analysis of DHODH expression in Hep G2 (A) and NIH/3T3 (B) whole cell lysates. Blocked with UltraCue® Blocking Reagent: sc-512614. Detection reagent used: m-IgG, BP CIL 880: sc-516180.**

### Select Product Citations

### Research Use
For research use only, not for use in diagnostic procedures.