

Active Recombinant Human DHODH protein, His-tagged

Cat. No. DHODH-11971H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human DHODH protein(Q02127)(35-392 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	35-392 aa
Form	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	Dihydroorotate dehydrogenase (DHODH) is an enzyme which catalyzesthefourth enzymatic step, the ubiquinone-mediated oxidation of dihydroorotate to orotate, in de novo pyrimidine biosynthesis. This protein is a mitochondrial protein located on the outer surface of the inner mitochondrial membrane. Asanenzyme associated with the electron transport chain, DHODH could link mitochondrial bioenergetics, cell proliferation, ROS production, and apoptosis in certain cell types. DHODH depletion also resulted in increased ROS production, decreased membrane potential and cell growth retardation. Besides, FK506 Binding Protein 8 (FKBP8) has been identified as an interactor of DHODH, thus a binding ELISA assay was conducted to detect the interaction of recombinant human DHODH and recombinant human FKBP8. Briefly, DHODH were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL werethentransferred to FKBP8-coated microtiter wells and incubated for 2h at 37°C. Wellswere washed with PBST and incubated for 1h with anti- DHODHpAb, then

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aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50μ stop solution to the wells and read at 450nm immediately. The binding activity of DHODH and FKBP8 was shown, and this effect was in a dose dependent manner.

Molecular Mass	42.4kDa
Endotoxin	<1.0EU per 1μg (determined by the LAL method).
Purity	> 80%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	DHODH dihydroorotate dehydrogenase (quinone) [Homo sapiens]
Official Symbol	DHODH
Synonyms	DHODH; dihydroorotate dehydrogenase (quinone); dihydroorotate dehydrogenase; dihydroorotate dehydrogenase (quinone), mitochondrial; dihydroorotate oxidase; human complement of yeast URA1; URA1; POADS; DHODEHase;
Gene ID	1723
mRNA Refseq	NM_001361

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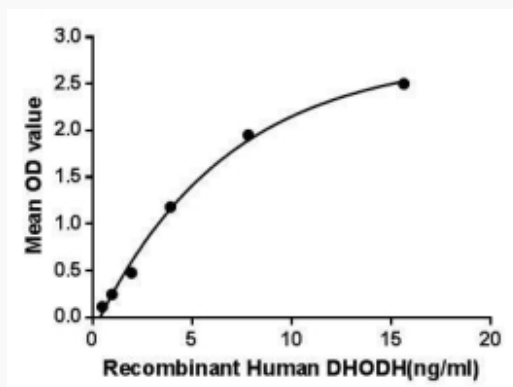
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Protein Refseq NP_001352

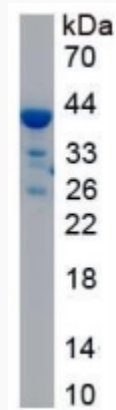
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UniProt ID Q02127

Activity



SDS-PAGE



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