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## Product Datasheet

### Human DHODH protein, His tag, Unconjugated GTX00200-PRO

Article Name	Human DHODH protein, His tag, Unconjugated
Biozol Catalog Number	GTX00200-PRO
Supplier Catalog Number	GTX00200-pro
Alternative Catalog Number	GTX00200-PRO-10
Manufacturer	GeneTex
Category	Proteine/Peptide
Application	FA
Species Reactivity	Human
Conjugation	Unconjugated
NCBI	<a href="#">1723</a>
UniProt	<a href="#">Q02127</a>
Buffer	Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose, ProClin 300.
Expression System	E. coli
Form	Lyophilized powder
Sequence	N-terminal His-Tag, Arg35~Asp392 (NP_001352.2)

#### Application Notes

Dihydroorotate dehydrogenase (DHODH) is an enzyme which catalyzes the fourth 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. As an enzyme 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 100 µl were then transferred to FKBP8-coated microtiter wells and incubated for 2h at 37C. Wells were washed with PBST and incubated for 1h with anti- DHODH pAb, then 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 37C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of DHODH and FKBP8 was in a dose dependent manner.