

Recombinant Active Human D2HGDH Protein, His-tagged, Animal Free

Cat. No. D2HGDH-02H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Active Full length Human D2HGDH Protein (Animal free) with His tag C-Terminus was expressed in E. coli.
Species	Human
Source	E.coli
Description	This gene encodes D-2hydroxyglutarate dehydrogenase, a mitochondrial enzyme belonging to the FAD-binding oxidoreductase/transferase type 4 family. This enzyme, which is most active in liver and kidney but also active in heart and brain, converts D-2-hydroxyglutarate to 2-ketoglutarate. Mutations in this gene are present in D-2-hydroxyglutaric aciduria, a rare recessive neurometabolic disorder causing developmental delay, epilepsy, hypotonia, and dysmorphic features.
Form	Lyophilized
Bio-activity	The specific activity of D2HGDH is $\geq 90,000$ mU/mg.
Molecular Mass	39 kDa
AA Sequence	MKVLCYGV RDVELPIFEACNKEFGYDIKCVPDYLN TKETAEMAAGFDAVILRGNCFA NKQNLDIYKKLG VKYILTRTAGTDHIDKEYAKELGFPM AFVPRYSPNAIAELAVTQAM MLLRHTAYTTSRTAKKNFKVDAFMFSKEVRNCTVGVVGLGRIGRVAAQIFHGMGAT VIGEDVFEIKGIEDYCTQVSLDEVLEKSDIITI HAPYIKENGAVVTRDFLKKMKDGAILV

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	NCARGQLVDTEAVIEAVESGKLGGYGCDVLDGEASVFGKDLEGQKLENPLFEKLVD LYPRVLITPHLGSYTDEAVKNMVEVSYNLKDLAETGDCPNKIKMGSSHHHHHHSS GLVPRGSHM
Purity	≥ 99% SDS-PAGE
Applications	Functional Studies, SDS-PAGE
Storage	Shipped at 4 centigrade. Store at +4 centigrade short term (1-2 weeks). Store at -20 centigrade. Avoid freeze/thaw cycle. This product is an active protein and may elicit a biological response in vivo, handle with caution.
Reconstitution	Reconstitute in water to a concentration of 0.1-5 mg/mL. The solution can be diluted into other aqueous buffers and stored at –20 centigrade for future use.
Full Length	Full L.

GENE INFORMATION

Gene Name	D2HGDH D-2-hydroxyglutarate dehydrogenase [Homo sapiens (human)]
Official Symbol	D2HGDH
Synonyms	D2HGDH; D-2-hydroxyglutarate dehydrogenase; D2HGD; D-2-hydroxyglutarate dehydrogenase, mitochondrial; EC 1.1.99.39
Gene ID	728294
mRNA Refseq	NM_152783

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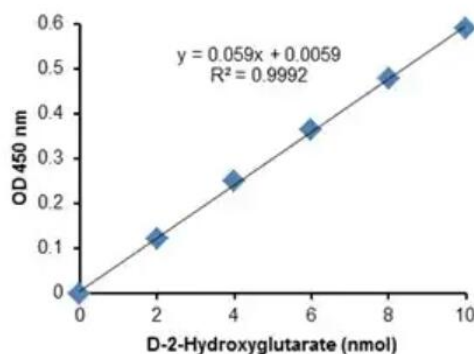
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Protein Refseq NP_689996

MIM 609186

UniProt ID D2RJU7

**Active D2HGDH
reacts with D2HG
specifically.**



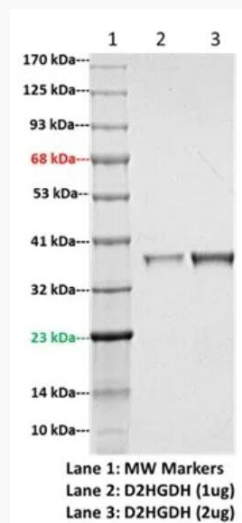
1 ng D2HGDH reacts with 2~10 nmole D2HG. Activity can be calculated from the increase of OD 450 nm after 1 hour incubation at 37 centigrade using the D-2-Hydroxyglutarate Colorimetric Assay Kit.

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**SDS-PAGE (4-20%)
of Active D2HGDH**



Recombinant D2HGDH Protein loaded under reducing conditions and stained with Coomassie Blue. The protein has a predicted MW of 39 kDa.

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