

D2HGDH (E-13): sc-241380

BACKGROUND

D2HGDH (D-2-hydroxyglutarate dehydrogenase), also known as FLJ42195 or MGC25181, is a 521 amino acid member of the FAD-binding oxidoreductase/transferase type 4 protein family. Localized to mitochondria, D2HGDH is activated by cobalt and zinc and utilizes FAD as a cofactor. D2HGDH catalyzes the oxidation of D-2-hydroxyglutarate, resulting in α -ketoglutarate. Defects in the gene that encodes D2HGDH are the cause of D-2-hydroxyglutaric aciduria (D2HGA), a rare recessive neurometabolic disorder characterized by early infantile-onset epileptic encephalopathy and cardiomyopathy. D2HGA causes developmental delay, hypotonia, epilepsy and dysmorphic features. D2HGDH contains one FAD-binding PCMH-type domain and is expressed as two isoforms produced by alternative splicing.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: D2HGDH (human) mapping to 2q37.3; D2hgdh (mouse) mapping to 1 D.

SOURCE

D2HGDH (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of D2HGDH of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-241380 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

D2HGDH (E-13) is recommended for detection of D2HGDH of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

D2HGDH (E-13) is also recommended for detection of D2HGDH in additional species, including equine and bovine.

Suitable for use as control antibody for D2HGDH siRNA (m): sc-142809, D2HGDH shRNA Plasmid (m): sc-142809-SH and D2HGDH shRNA (m) Lentiviral Particles: sc-142809-V.

Molecular Weight of (predicted) D2HGDH isoforms: 56/33 kDa.

Molecular Weight of (observed) D2HGDH: 50 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. 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 or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **D2HGDH (E-6): sc-514171**, our highly recommended monoclonal alternative to D2HGDH (E-13).