

GCDH (K-25): sc-133610



The Power to Question

BACKGROUND

GCDH (glutaryl-Coenzyme A dehydrogenase), also known as GCD or ACAD5, is a 438 amino acid protein that localizes to the mitochondrial matrix and belongs to the acyl-CoA dehydrogenase family. Existing as a homotetramer, GCDH uses FAD as a cofactor to catalyze the oxidative decarboxylation of glutaryl-CoA to crotonyl-CoA and CO₂ in the degradative pathway of L-lysine, L-hydroxylysine and L-tryptophan metabolism. While GCDH exists as both a long and short isoform, only the long isoform is a functionally active protein. Defects in the gene encoding GCDH are the cause of glutaric acidemia type I (GA-I), an autosomal recessive disorder that is characterized by the accumulation of glutacnic acid and is associated with such symptoms as progressive dystonia and athetosis due to gliosis and neuronal loss in the basal ganglia.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GCDH (human) mapping to 19p13.13; Gcdh (mouse) mapping to 8 C3.

SOURCE

GCDH (K-25) is a Protein A purified rabbit polyclonal antibody raised against synthetic GCDH peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and <0.02% sucrose.

APPLICATIONS

GCDH (K-25) is recommended for detection of GCDH of mouse, rat, human and zebrafish origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

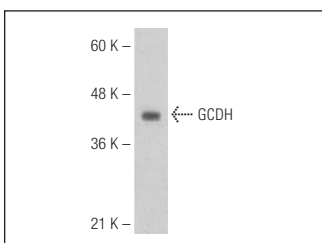
Suitable for use as control antibody for GCDH siRNA (h): sc-97542, GCDH siRNA (m): sc-145359, GCDH shRNA Plasmid (h): sc-97542-SH, GCDH shRNA Plasmid (m): sc-145359-SH, GCDH shRNA (h) Lentiviral Particles: sc-97542-V and GCDH shRNA (m) Lentiviral Particles: sc-145359-V.

Molecular Weight of GCDH: 48 kDa.

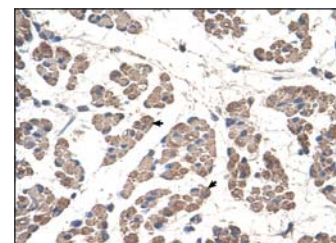
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



GCDH (K-25): sc-133610. Western blot analysis of GCDH expression in Hep G2 whole cell lysate.



GCDH (K-25): sc-133610. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human muscle tissue showing cytoplasmic localization.

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.