

GLDC (H-300): sc-134707

BACKGROUND

The glycine cleavage system is comprised of AMT (known as protein T), GCSH (known as protein H), DLD (known as protein L) and GLDC (known as protein P), all of which work together to catalyze the cleavage and degradation of glycine. GLDC (glycine dehydrogenase), also known as GCE, GCSP (glycine cleavage system P protein) or HYGN1, is a 1,020 amino acid protein that localizes to the mitochondria and belongs to the gcvP family. GLDC binds to glycine and enables the methylamine group from glycine to be transferred to the protein T. GLDC exists as a homodimer and utilizes pyridoxal phosphate as a cofactor. Mutations in the gene encoding GLDC leads to nonketotic hyperglycinemia (NKH), also known as glycine encephalopathy (GCE), an autosomal recessive disease characterized by accumulation of a large amount of glycine in body fluid and by severe neurological symptoms.

CHROMOSOMAL LOCATION

Genetic locus: GLDC (human) mapping to 9p24.1; Glcd (mouse) mapping to 19 C1.

SOURCE

GLDC (H-300) is a rabbit polyclonal antibody raised against amino acids 256-555 mapping within an internal region of GLDC of human origin.

PRODUCT

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

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.

APPLICATIONS

GLDC (H-300) is recommended for detection of GLDC of mouse, rat and human 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GLDC (H-300) is also recommended for detection of GLDC in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for GLDC siRNA (h): sc-92873, GLDC siRNA (m): sc-145419, GLDC shRNA Plasmid (h): sc-92873-SH, GLDC shRNA Plasmid (m): sc-145419-SH, GLDC shRNA (h) Lentiviral Particles: sc-92873-V and GLDC shRNA (m) Lentiviral Particles: sc-145419-V.

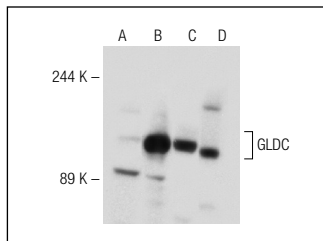
Molecular Weight of GLDC: 113 kDa.

Positive Controls: GLDC (m): 293T lysate: sc-120499, Hep G2 cell lysate: sc-2227 or mouse liver extract: sc-2256.

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.

DATA



GLDC (H-300): sc-134707. Western blot analysis of GLDC expression in non-transfected 293T: sc-117752 (A), mouse GLDC transfected 293T: sc-120499 (B) and Hep G2 (C) whole cell lysates and mouse liver tissue extract (D).

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


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Try **GLDC (H-9): sc-376196** or **GLDC (A-9): sc-376106**, our highly recommended monoclonal alternatives to GLDC (H-300).