

TDH (D-14): sc-98171

BACKGROUND

L-threonine degradation occurs via two different pathways. One of the first steps of a major degradation pathway involves catalysis of L-threonine and NAD⁺ to 2-amino-3-ketobutyrate and NADH by TDH (L-threonine dehydrogenase). TDH, whose alternative names include FLJ25033 or SDR14E1P, is a 230 amino acid mitochondrial protein belonging to the sugar epimerase family. TDH is widely expressed in most tissues, excluding glioma cell lines, endothelial cells and some leukemia cell lines. Unlike murine TDH, human TDH is considered a pseudogene as it encodes non-functional truncated proteins that lack portions of the NAD⁺ binding motif and the majority of the C-terminus. Thus, human TDH does not participate in the L-threonine degradation pathway, and three alternatively spliced isoforms of TDH exist. The gene encoding TDH maps to human chromosome 8, which consists of nearly 146 million base pairs, houses more than 800 genes and is associated with a variety of diseases and malignancies.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TDH (human) mapping to 8p23.1; Tdh (mouse) mapping to 14 D1.

SOURCE

TDH (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TDH 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.

Blocking peptide available for competition studies, sc-98171 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TDH (D-14) is recommended for detection of TDH 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).

TDH (D-14) is also recommended for detection of TDH in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TDH siRNA (h): sc-77425, TDH siRNA (m): sc-154156, TDH shRNA Plasmid (h): sc-77425-SH, TDH shRNA Plasmid (m): sc-154156-SH, TDH shRNA (h) Lentiviral Particles: sc-77425-V and TDH shRNA (m) Lentiviral Particles: sc-154156-V.

Molecular Weight of TDH: 25 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.