

DHDPSL (N-18): sc-240317

BACKGROUND

DHDPSL, also known as HOGA1 (4-hydroxy-2-oxoglutarate aldolase 1), HP3, NPL2 or DHDP2, is a 327 amino acid mitochondrial protein that catalyzes the last step in the hydroxyproline metabolic pathway. Existing as two alternatively spliced isoforms, DHDPSL is expressed in kidney and liver and is inhibited by divalent cations. Defects in the gene that encode DHDPSL are the cause of primary hyperoxaluria type III (HP3), a disorder of calcium oxalate nephrolithiasis. Patients with HP3 excrete urine with elevated levels of oxalate and L-glycerate. The DHDPSL gene maps to human chromosome 10, which contains over 800 genes and 135 million nucleotides. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

REFERENCES

- Deloukas, P., et al. 2000. Report of the third international workshop on human chromosome 10 mapping and sequencing 1999. *Cytogenet. Cell Genet.* 90: 1-12.
- Berger, P., et al. 2002. Molecular cell biology of Charcot-Marie-Tooth disease. *Neurogenetics* 4: 1-15.
- Teresi, R.E., et al. 2007. Cowden syndrome-affected patients with PTEN promoter mutations demonstrate abnormal protein translation. *Am. J. Hum. Genet.* 81: 756-767.
- Yin, Y. and Shen, W.H. 2008. PTEN: a new guardian of the genome. *Oncogene* 27: 5443-5453.
- Belostotsky, R., et al. 2010. Mutations in DHDPSL are responsible for primary hyperoxaluria type III. *Am. J. Hum. Genet.* 87: 392-399.
- Laugel, V., et al. 2010. Mutation update for the CSB/ERCC6 and CSA/ERCC8 genes involved in Cockayne syndrome. *Hum. Mutat.* 31: 113-126.
- Online Mendelian Inheritance in Man, OMIM[™]. 2010. Johns Hopkins University, Baltimore, MD. MIM Number: 613597. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: DHDPSL (human) mapping to 10q24.1; Dhdpsl (mouse) mapping to 19 C3.

SOURCE

DHDPSL (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of DHDPSL of human origin.

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.

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-240317 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DHDPSL (N-18) is recommended for detection of DHDPSL of human and mouse origin and Npl2 of rat 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).

Suitable for use as control antibody for C10orf65 siRNA (h): sc-90620, DHDPSL siRNA (m): sc-108108, C10orf65 shRNA Plasmid (h): sc-90620-SH, DHDPSL shRNA Plasmid (m): sc-108108-SH, C10orf65 shRNA (h) Lentiviral Particles: sc-90620-V and DHDPSL shRNA (m) Lentiviral Particles: sc-108108-V.

Molecular Weight of DHDPSL isoform 1: 35 kDa.

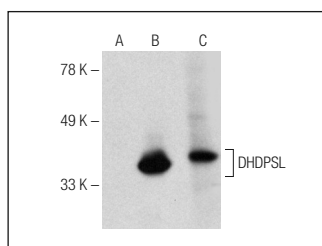
Molecular Weight of DHDPSL isoform 2: 18 kDa.

Positive Controls: DHDPSL (m): 293T Lysate: sc-117761, DHDPSL (h): 293T Lysate: sc-176944 or mouse kidney extract: sc-2255.

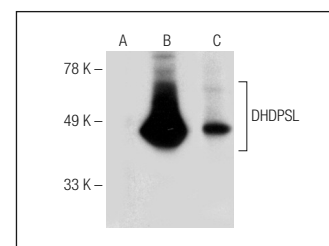
RECOMMENDED SECONDARY REAGENTS

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.

DATA



DHDPSL (N-18): sc-240317. Western blot analysis of DHDPSL expression in non-transfected: sc-117752 (A) and mouse DHDPSL transfected: sc-117761 (B) 293T whole cell lysates and mouse kidney tissue extract (C).



DHDPSL (N-18): sc-240317. Western blot analysis of DHDPSL expression in non-transfected: sc-117752 (A) and human DHDPSL transfected: sc-176944 (B) 293T whole cell lysates and mouse kidney tissue extract (C).

PROTOCOLS

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