

DNASE1L1 (V-14): sc-68475

BACKGROUND

DNASE1L1 (deoxyribonuclease I-like 1), also known as XIB, DNL1L or DNA-SEX, is a 302 amino acid protein that localizes to the endoplasmic reticulum and belongs to the deoxyribonuclease family. Expressed at high levels in cardiac and skeletal muscle and at lower levels in a variety of tissues throughout the body, DNASE1L1 exists as multiple alternatively spliced isoforms and is thought to function in a similar manner to DNase I, possibly mediating internucleosomal DNA degradation via catalytic cleavage events. The gene encoding DNASE1L1 maps to human chromosome X, which contains nearly 153 million base pairs and houses over 1,000 genes. In conjunction with chromosome Y, chromosome X is responsible for sex determination. There are a number of conditions related to an abnormal number and combination of sex chromosomes, some of which include Turner's syndrome, color blindness, hemophilia and Duchenne muscular dystrophy.

REFERENCES

- Parrish, J.E., et al. 1995. A muscle-specific DNase I-like gene in human Xq28. *Hum. Mol. Genet.* 4: 1557-1564.
- Coy, J.F., et al. 1996. Isolation, differential splicing and protein expression of a DNase on the human X chromosome. *Cell Death Differ.* 3: 199-206.
- Pergolizzi, R., et al. 1996. Cloning of a gene encoding a DNase I-like endonuclease in the human Xq28 region. *Gene* 168: 267-270.
- Rodriguez, A.M., et al. 1997. Identification, localization and expression of two novel human genes similar to deoxyribonuclease I. *Genomics* 42: 507-513.
- Online Mendelian Inheritance in Man, OMIM[™]. 1997 Johns Hopkins University, Baltimore, MD. MIM Number: 300081. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Malferrari, G., et al. 1999. Molecular characterization of a novel endonuclease (Xib) and possible involvement in lysosomal glycogen storage disorders. *Exp. Mol. Pathol.* 66: 123-130.

CHROMOSOMAL LOCATION

Genetic locus: Dnase1l1 (mouse) mapping to X A7.3.

SOURCE

DNASE1L1 (V-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DNASE1L1 of mouse 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-68475 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

DNASE1L1 (V-14) is recommended for detection of DNASE1L1 of mouse and 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 DNASE1L1 siRNA (m): sc-77166, DNASE1L1 shRNA Plasmid (m): sc-77166-SH and DNASE1L1 shRNA (m) Lentiviral Particles: sc-77166-V.

Molecular Weight of DNASE1L1: 34 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.

SELECT PRODUCT CITATIONS

- Zykova, S.N., et al. 2010. Renal Dnase1 enzyme activity and protein expression is selectively shut down in murine and human membranoproliferative lupus nephritis. *PLoS ONE* 5: e12096.

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.