

# DNASE1L2 (M-19): sc-68317

## BACKGROUND

DNASE1L2 (deoxyribonuclease I-like 2), also known as DHP1 or DNAS1L2, is a 299 amino acid secreted protein that is expressed in brain tissue and shares sequence similarity with DNase I, suggesting a possibly role in DNA hydrolysis. The gene encoding DNASE1L2 maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

## REFERENCES

- Rodriguez, A.M., Rodin, D., Nomura, H., Morton, C.C., Weremowicz, S. and Schneider, M.C. 1997. Identification, localization, and expression of two novel human genes similar to deoxyribonuclease I. *Genomics* 42: 507-513.
- Shiokawa, D. and Tanuma, S. 2001. Characterization of human DNase I family endonucleases and activation of DNase  $\gamma$  during apoptosis. *Biochemistry* 40: 143-152.
- Shiokawa, D., Matsushita, T., Kobayashi, T., Matsumoto, Y. and Tanuma, S. 2004. Characterization of the human DNAS1L2 gene and the molecular mechanism for its transcriptional activation induced by inflammatory cytokines. *Genomics* 84: 95-105.
- Coupry, I., Monnet, L., Attia, A.A., Taine, L., Lacombe, D. and Arveiler, B. 2004. Analysis of CBP (CREBBP) gene deletions in Rubinstein-Taybi syndrome patients using real-time quantitative PCR. *Hum. Mutat.* 23: 278-284.
- Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 602622. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Jäger, K., Fischer, H., Tschachler, E. and Eckhart, L. 2007. Terminal differentiation of nail matrix keratinocytes involves up-regulation of DNASE1L2 but is independent of caspase-14 expression. *Differentiation* 75: 939-946.
- Fischer, H., Eckhart, L., Mildner, M., Jaeger, K., Buchberger, M., Ghannadan, M. and Tschachler, E. 2007. DNASE1L2 degrades nuclear DNA during corneocyte formation. *J. Invest. Dermatol.* 127: 24-30.

## CHROMOSOMAL LOCATION

Genetic locus: Dnase1l2 (mouse) mapping to 17 A3.3.

## SOURCE

DNASE1L2 (M-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of DNASE1L2 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-68317 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

DNASE1L2 (M-19) is recommended for detection of DNASE1L2 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 DNASE1L2 siRNA (m): sc-77321, DNASE1L2 shRNA Plasmid (m): sc-77321-SH and DNASE1L2 shRNA (m) Lentiviral Particles: sc-77321-V.

Molecular Weight (predicted) of DNASE1L2: 33 kDa.

Molecular Weight (observed) of DNASE1L2: 37 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> 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](http://www.scbt.com) or our catalog for detailed protocols and support products.