SANTA CRUZ BIOTECHNOLOGY, INC.

EXDL1 (G-17): sc-240354

BACKGROUND

EXDL1 (exonuclease 3'-5' domain-containing protein 1), also known as EXD1, is a 514 amino acid protein that belongs to the EXD1 family and contains one 3'-5' exonuclease domain. Existing as two alternatively spliced isoforms, the gene encoding EXDL1 maps to human chromosome 15q15.1 and mouse chromosome 2 E5. Encoding more than 700 genes, chromosome 15 is made up of approximately 106 million base pairs and is about 3% of the human genome. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes in the 15q11-q13 region. In the case of Angelman syndrome, this loss is due to inactivity of the maternal 15q15.1 encoded UBE3A gene in the brain by either chromosomal deletion or mutation. In cases of Prader-Willi syndrome, there is a partial or complete deletion of this region from the paternal copy of chromosome 15.

REFERENCES

1. Hurowitz, G.I., et al. 1993. Neuropsychiatric aspects of adult-onset Tay-Sachs disease: two case reports with several new findings. J Neuropsychiatry Clin. Neurosci. 5: 30-36.
2. Zody, M.C., et al. 2006. Analysis of the DNA sequence and duplication history of human chromosome 15. Nature 440: 671-675.
3. Midla, G.S. 2008. Diagnosis and management of patients with Marfan syndrome. JAAPA 21: 21-25.
4. Dan, B. 2009. Angelman syndrome: current understanding and research prospects. Epilepsia 50: 2331-2339.
5. Ferrer-Bolufer, I., et al. 2009. Tyrosinemia type 1 and Angelman syndrome due to paternal uniparental isodisomy 15. J. Inherit. Metab. Dis. E-pulished.
6. Wawrzik, M., et al. 2010. The C15orf2 gene in the Prader-Willi syndrome region is subject to genomic imprinting and positive selection. Neurogenetics 11: 153-161.

CHROMOSOMAL LOCATION

Genetic locus: EXD1 (human) mapping to 15q15.1; Exd1 (mouse) mapping to 2 E5.

SOURCE

EXDL1 (G-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of EXDL1 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-240354 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

EXDL1 (G-17) is recommended for detection of EXDL1 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); non cross-reactive with EXDL2.

EXDL1 (G-17) is also recommended for detection of EXDL1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for EXDL1 siRNA (h): sc-90195, EXDL1 siRNA (m): sc-144967, EXDL1 shRNA Plasmid (h): sc-90195-SH, EXDL1 shRNA Plasmid (m): sc-144967-SH, EXDL1 shRNA (h) Lentiviral Particles: sc-90195-V and EXDL1 shRNA (m) Lentiviral Particles: sc-144967-V.

Molecular Weight of EXDL1 isoforms 1/2: 58/36 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.

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.