# SANTA CRUZ BIOTECHNOLOGY, INC.

# LALP1 (E-17): sc-247404



## BACKGROUND

LALP1 (lysosomal apyrase-like protein 1), also known as ENTPD7 (ectonucleoside triphosphate diphosphohydrolase 7), is a 604 amino acid multi-pass membrane protein that belongs to the GDA1/CD39 NTPase family. Preferentially hydrolyzing nucleoside 5'-triphosphates, LALP1 and has an order of activity with respect to possible substrates, which is UTP > GTP > CTP. The gene that encodes LALP1 consists of approximately 51,740 bases and maps to human chromosome 10q24.2. Spanning nearly 135 million base pairs, chromosome 10 makes up approximately 4.5% of total DNA in cells and encodes nearly 1,200 genes. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromatic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

# REFERENCES

- 1. Troelstra, C., et al. 1992. Localization of the nucleotide excision repair gene ERCC6 to human chromosome 10q11-q21. Genomics 12: 745-749.
- Jabs, E.W., et al. 1994. Jackson-Weiss and Crouzon syndromes are allelic with mutations in fibroblast growth factor receptor 2. Nat. Genet. 8: 275-279.
- Shi, J.D., et al. 2001. Molecular cloning and characterization of a novel mammalian endo-apyrase (LALP1). J. Biol. Chem. 276: 17474-17478.
- 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.
- Cho, M.Y., et al. 2008. First report of ovarian dysgerminoma in Cowden syndrome with germline PTEN mutation and PTEN-related 10q loss of tumor heterozygosity. Am. J. Surg. Pathol. 32: 1258-1264.
- 7. Yin, Y. and Shen, W.H. 2008. PTEN: a new guardian of the genome. Oncogene 27: 5443-5453.
- 8. Laugel, V., et al. 2010. Mutation update for the CSB/ERCC6 and CSA/ERCC8 genes involved in Cockayne syndrome. Hum. Mutat. 31: 113-126.

#### CHROMOSOMAL LOCATION

Genetic locus: ENTPD7 (human) mapping to 10q24.2; Entpd7 (mouse) mapping to 19 C3.

#### SOURCE

LALP1 (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LALP1 of human origin.

# PRODUCT

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

Blocking peptide available for competition studies, sc-247404 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# APPLICATIONS

LALP1 (E-17) is recommended for detection of LALP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], 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 LALP70.

LALP1 (E-17) is also recommended for detection of LALP1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for LALP1 siRNA (h): sc-90373, LALP1 siRNA (m): sc-146639, LALP1 shRNA Plasmid (h): sc-90373-SH, LALP1 shRNA Plasmid (m): sc-146639-SH, LALP1 shRNA (h) Lentiviral Particles: sc-90373-V and LALP1 shRNA (m) Lentiviral Particles: sc-146639-V.

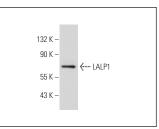
Molecular Weight of LALP1: 69 kDa.

Positive Controls: mouse brain extract: sc-2253.

### **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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

### DATA



LALP1 (E-17): sc-247404. Western blot analysis of LALP1 expression in mouse brain tissue extract.

### **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.