# SANTA CRUZ BIOTECHNOLOGY, INC.

# LHPP (H-86): sc-134671



#### BACKGROUND

LHPP (phospholysine phosphohistidine inorganic pyrophosphate phosphatase), also known as HDHD2B, is a 270 amino acid protein that exists as a homodimer and is a member of the HAD-like hydrolase superfamily. Expressed in liver, kidney and moderately in brain, LHPP is encoded by a gene located on 10, which houses over 1,200 genes and comprises nearly 4.5% of the human genome. 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

- 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.
- 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.
- 3. Gilbert, F. 2001. Chromosome 10. Genet. Test. 5: 69-82.
- Berger, P., et al. 2002. Molecular cell biology of Charcot-Marie-Tooth disease. Neurogenetics 4: 1-15.
- 5. Nonneman, D., et al. 2004. Comparative mapping of human chromosome 10 to pig chromosomes 10 and 14. Anim. Genet. 35: 338-343.
- Deloukas, P., et al. 2004. The DNA sequence and comparative analysis of human chromosome 10. Nature 429: 375-381.
- 7. Chen, L., et al. 2005. Roles of FGF signaling in skeletal development and human genetic diseases. Front. Biosci. 10: 1961-1976.
- 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.
- 9. Neff, C.D., et al. 2009. Evidence for HTR1A and LHPP as interacting genetic risk factors in major depression. Mol. Psychiatry 14: 621-630.

#### CHROMOSOMAL LOCATION

Genetic locus: LHPP (human) mapping to 10q26.13; Lhpp (mouse) mapping to 7 F3.

#### SOURCE

LHPP (H-86) is a rabbit polyclonal antibody raised against amino acids 74-159 mapping within an internal region of LHPP of human origin.

#### PRODUCT

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

#### **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### **APPLICATIONS**

LHPP (H-86) is recommended for detection of LHPP 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).

LHPP (H-86) is also recommended for detection of LHPP in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LHPP siRNA (h): sc-90377, LHPP siRNA (m): sc-108656, LHPP shRNA Plasmid (h): sc-90377-SH, LHPP shRNA Plasmid (m): sc-108656-SH, LHPP shRNA (h) Lentiviral Particles: sc-90377-V and LHPP shRNA (m) Lentiviral Particles: sc-108656-V.

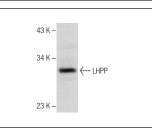
Molecular Weight of LHPP: 29 kDa.

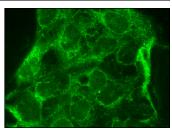
Positive Controls: Mouse brain extract: sc-2253, A549 cell lysate: sc-2413 or Hep G2 cell lysate: sc-2227.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

### DATA





LHPP (H-86): sc-134671. Western blot analysis of LHPP expression in A549 whole cell lysate.

LHPP (H-86): sc-134671. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization.

## **RESEARCH USE**

For research use only, not for use in diagnostic procedures.



Try LHPP (B-2): sc-376648 or LHPP (H-2): sc-376527, our highly recommended monoclonal alternatives to LHPP (H-86).