

LHPP (H-2): sc-376527

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, nonsyndromic 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.
- 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.
- 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.
- 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.
- 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-2) is a mouse monoclonal antibody raised against amino acids 74-159 mapping within an internal region of LHPP of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

LHPP (H-2) is recommended for detection of LHPP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

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.

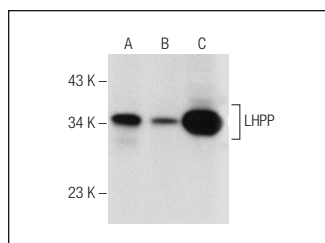
Molecular Weight of LHPP: 29 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, SK-N-MC cell lysate: sc-2237 or human liver extract: sc-363766.

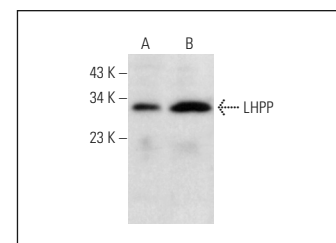
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



LHPP (H-2): sc-376527. Western blot analysis of LHPP expression in Hep G2 (A) and SK-N-MC (B) whole cell lysates and human liver tissue extract (C).



LHPP (H-2): sc-376527. Western blot analysis of LHPP expression in mouse brain (A) and rat brain (B) tissue extracts.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.