

## ILPIP (C-12): sc-376694

### BACKGROUND

ILPIP (ILP-interacting protein), also designated amyotrophic lateral sclerosis 2 juvenile chromosome region gene 2 (ALS2CR2), interacts with X-linked IAP (XIAP), a member of the inhibitor of apoptosis protein (IAP) family. The IAP family are caspase inhibitors that block the execution phase of apoptosis. IAPs are involved in the development and progression of solid tumors and hematologic malignancies, making them a potential target for cancer therapeutics. ILPIP enhances XIAP-mediated activation of the TGF $\beta$ -activated kinase 1/c-Jun NH<sub>2</sub>-terminal kinase 1 (TAK1/JNK1) signal transduction pathway. This pathway protects against the interleukin-1 $\beta$  converting enzyme of FAS-mediated apoptosis. The protection of XIAP against apoptosis by ILPIP is caspase-independent. When expressed alone, ILPIP only moderately activates the TAK1/JNK1 signal transduction pathway.

### REFERENCES

- Hadano, S., et al. 2001. Cloning and characterization of three novel genes, ALS2CR1, ALS2CR2, and ALS2CR3, in the juvenile amyotrophic lateral sclerosis (ALS2) critical region at chromosome 2q33-q34: candidate genes for ALS2. *Genomics* 71: 200-213.
- Sanna, M.G., et al. 2002. ILPIP, a novel anti-apoptotic protein th of JNK1 and protection against apoptosis. *J. Biol. Chem.* 277: 30454-30462.
- Strausberg, R.L., et. al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. *Proc. Natl. Acad. Sci. USA* 99: 16899-16903.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607333. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Hillier, L.W., et. al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. *Nature* 434: 724-731.
- Schimmer, A.D., et al. 2005. Targeting the IAP family of caspase inhibitors as an emerging therapeutic strategy. *Hematology Am. Soc. Hematol. Educ. Program* 2005: 215-219.

### CHROMOSOMAL LOCATION

Genetic locus: STRADB (human) mapping to 2q33.1.

### SOURCE

ILPIP (C-12) is a mouse monoclonal antibody raised against amino acids 277-356 mapping near the C-terminus of ILPIP of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> 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

ILPIP (C-12) is recommended for detection of ILPIP- $\alpha$  and ILPIP- $\beta$  of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for ILPIP siRNA (h): sc-60842, ILPIP shRNA Plasmid (h): sc-60842-SH and ILPIP shRNA (h) Lentiviral Particles: sc-60842-V.

Molecular Weight of ILPIP $\alpha$ : 52 kDa.

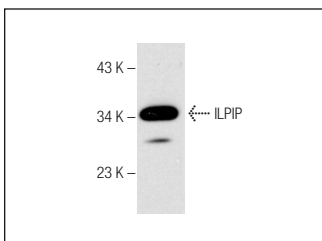
Molecular Weight of ILPIP $\beta$ : 35 kDa.

Positive Controls: human heart extract: sc-363763.

### RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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



ILPIP (F-11): sc-376694. Western blot analysis of ILPIP expression in human heart tissue extract.

### 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) for detailed protocols and support products.