

LARP1 (P-21): sc-102006

BACKGROUND

La-related protein 1 (LARP1), also known as KIAA0731, is a 1,096 amino acid protein belonging to the LARP family. LARP1 contains two conserved regions, one that shares homology with La/SSB proteins and one that is conserved only across LARP family proteins. Within the La/SSB conserved region, LARP1 contains a HTH La-type RNA-binding domain, which may indicate a role in RNA stabilization and folding. Upon DNA damage, LARP1 is phosphorylated by ATR or ATM. LARP1 interacts with many signaling intermediate proteins, including 14-3-3 β , 14-3-3 γ , 14-3-3 θ and 14-3-3 ω . Widely expressed, LARP1 levels are highest in heart. LARP1 exists as three isoforms produced by alternative splicing.

REFERENCES

1. Nagase, T., et al. 1998. Prediction of the coding sequences of unidentified human genes. XI. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 5: 277-286.
2. Chauvet, S., et al. 2000. dLarp, a new candidate Hox target in *Drosophila* whose orthologue in mouse is expressed at sites of epithelium/mesenchymal interactions. Dev. Dyn. 218: 401-413.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 612059. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Jin, J., et al. 2004. Proteomic, functional, and domain-based analysis of *in vivo* 14-3-3 binding proteins involved in cytoskeletal regulation and cellular organization. Curr. Biol. 14: 1436-1450.
5. Horke, S., et al. 2004. Nuclear trafficking of La protein depends on a newly identified nucleolar localization signal and the ability to bind RNA. J. Biol. Chem. 279: 26563-26570.
6. Beausoleil, S.A., et al. 2004. Large-scale characterization of HeLa cell nuclear phosphoproteins. Proc. Natl. Acad. Sci. USA 101: 12130-12135.
7. Matsuoka, S., et al. 2007. ATM and ATR substrate analysis reveals extensive protein networks responsive to DNA damage. Science 316: 1160-1166.

CHROMOSOMAL LOCATION

Genetic locus: LARP1 (human) mapping to 5q33.2.

SOURCE

LARP1 (P-21) is a purified rabbit polyclonal antibody raised against LARP1 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

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

APPLICATIONS

LARP1 (P-21) is recommended for detection of LARP1 of rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 LARP1 siRNA (h): sc-91848, LARP1 shRNA Plasmid (h): sc-91848-SH and LARP1 shRNA (h) Lentiviral Particles: sc-91848-V.

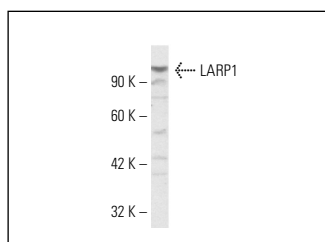
Molecular Weight of LARP1: 123 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

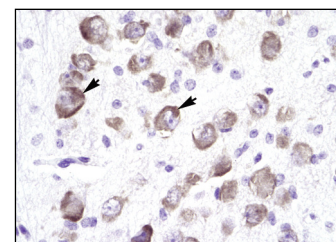
RECOMMENDED SECONDARY REAGENTS

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™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) 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™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



LARP1 (P-21): sc-102006. Western blot analysis of LARP1 expression in Hep G2 whole cell lysate.



LARP1 (P-21): sc-102006. Immunoperoxidase staining of formalin fixed, paraffin-embedded human brain tissue showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

1. Cheung, P., et al. 2007. Specific interaction of HeLa cell proteins with coxsackievirus B3 3'UTR: La autoantigen binds the 3' and 5'UTR independently of the poly(A) tail. Cell. Microbiol. 9: 1705-1715.

RESEARCH USE

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