SANTA CRUZ BIOTECHNOLOGY, INC.

LARP1 (A-8): sc-515873

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 stabalization 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. Widely expressed, LARP1 levels are highest in heart. LARP1 exists as three isoforms produced by alternative splicing.

CHROMOSOMAL LOCATION

Genetic locus: LARP1 (human) mapping to 5q33.2; Larp1 (mouse) mapping to 11 B1.3.

SOURCE

LARP1 (A-8) is a mouse monoclonal antibody raised against amino acids 179-250 mapping near the N-terminus of LARP1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LARP1 (A-8) is available conjugated to agarose (sc-515873 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515873 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515873 PE), fluorescein (sc-515873 FITC), Alexa Fluor® 488 (sc-515873 AF488), Alexa Fluor® 546 (sc-515873 AF546), Alexa Fluor® 594 (sc-515873 AF594) or Alexa Fluor® 647 (sc-515873 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515873 AF680) or Alexa Fluor® 790 (sc-515873 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

LARP1 (A-8) is recommended for detection of LARP1 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), 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 siRNA (m): sc-146649, LARP1 shRNA Plasmid (h): sc-91848-SH, LARP1 shRNA Plasmid (m): sc-146649-SH, LARP1 shRNA (h) Lentiviral Particles: sc-91848-V and LARP1 shRNA (m) Lentiviral Particles: sc-146649-V.

Molecular Weight of LARP1: 123 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, Ramos cell lysate: sc-2216 or MDA-MB-231 cell lysate: sc-2232.

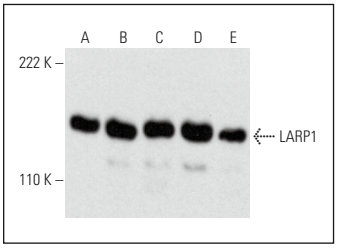
RESEARCH USE

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

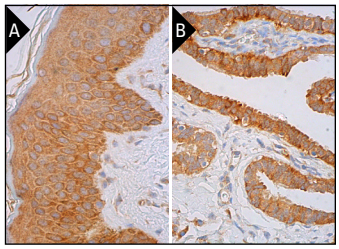
STORAGE

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

DATA



LARP1 (A-8): sc-515873. Western blot analysis of LARP1 expression in HeLa (**A**), MDA-MB-231 (**B**), COLO 320DM (**C**), Ramos (**D**) and Hep G2 (**E**) whole cell lysates.



LARP1 (A-8): sc-515873. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of keratinocytes, fibroblasts, Langerhans cells and melanocytes (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Hildebrandt, A., et al. 2019. The RNA-binding ubiquitin ligase MKRN1 functions in ribosome-associated quality control of poly(A) translation. Genome Biol. 20: 216.
2. Zhang, B., et al. 2019. The Ibr-7 derivative of ibrutinib exhibits enhanced cytotoxicity against non-small cell lung cancer cells via targeting of mTORC1/S6 signaling. Mol. Oncol. 13: 946-958.
3. Kim, B., et al. 2020. Discovery of widespread host protein interactions with the pre-replicated genome of CHIKV using VIR-CLASP. Mol. Cell 78: 624-640.
4. Wu, S., et al. 2020. A novel micropeptide encoded by Y-linked LINC00278 links cigarette smoking and AR signaling in male esophageal squamous cell carcinoma. Cancer Res. 80: 2790-2803.
5. Feng, J., et al. 2022. AKAP1 contributes to impaired mtDNA replication and mitochondrial dysfunction in podocytes of diabetic kidney disease. Int. J. Biol. Sci. 18: 4026-4042.
6. Farooq, Z., et al. 2022. The amino acid sensor GCN2 suppresses terminal oligopyrimidine (TOP) mRNA translation via La-related protein 1 (LARP1). J. Biol. Chem. 298: 102277.
7. Goering, R., et al. 2023. RNA localization mechanisms transcend cell morphology. Elife 12: e80040.

PROTOCOLS

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