

# LAS1L (D-14): sc-132735

## BACKGROUND

LAS1L is a 734 amino acid protein belonging to the LAS1 protein family. Subcellularly localized to the nucleus, LAS1L is expressed as four isoforms produced by alternative splicing. LAS1L is similar to the yeast protein LAS1, which plays a role in bud formation, morphogenesis and cell surface growth. The gene that encodes for LAS1L in humans is located on chromosome X. The X and Y chromosomes are the human sex chromosomes. Chromosome X consists of about 153 million base pairs and nearly 1,000 genes. The combination of an X and Y chromosome lead to normal male development while two copies of X lead to normal female development. Color blindness, hemophilia, and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently as males carry a single X chromosome.

## REFERENCES

1. Doseff, A.I. and Arndt, K.T. 1995. LAS1 is an essential nuclear protein involved in cell morphogenesis and cell surface growth. *Genetics* 141: 857-871.
2. Bernardino-Sgherri, J., Flagiello, D. and Dutrillaux, B. 2002. Overall DNA methylation and chromatin structure of normal and abnormal X chromosomes. *Cytogenet. Genome Res.* 99: 85-91.
3. Scherl, A., Couté, Y., Déon, C., Callé, A., Kindbeiter, K., Sanchez, J.C., Greco, A., Hochstrasser, D. and Diaz, J.J. 2002. Functional proteomic analysis of human nucleolus. *Mol. Biol. Cell* 13: 4100-4109.
4. Özçelik, T. 2002. Uncovering the complex mysteries of mosaicism. *Nature* 417: 588.
5. Andersen, J.S., Lam, Y.W., Leung, A.K., Ong, S.E., Lyon, C.E., Lamond, A.I. and Mann, M. 2005. Nucleolar proteome dynamics. *Nature* 433: 77-83.
6. Hayashi, T., Kubo, A., Takeuchi, T., Gekka, T., Goto-Omoto, S. and Kitahara, K. 2006. Novel form of a single X-linked visual pigment gene in a unique dichromatic color-vision defect. *Vis. Neurosci.* 23: 411-417.
7. Augui, S., Filion, G.J., Huart, S., Nora, E., Guggiari, M., Maresca, M., Stewart, A.F. and Heard, E. 2007. Sensing X chromosome pairs before X inactivation via a novel X-pairing region of the Xic. *Science* 318: 1632-1636.

## CHROMOSOMAL LOCATION

Genetic locus: LAS1L (human) mapping to Xq12; Las1l (mouse) mapping to X C3.

## SOURCE

LAS1L (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of LAS1L of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-132735 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

LAS1L (D-14) is recommended for detection of LAS1L isoforms 1-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

LAS1L (D-14) is also recommended for detection of LAS1L isoforms 1-4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LAS1L siRNA (h): sc-91324, LAS1L siRNA (m): sc-146656, LAS1L shRNA Plasmid (h): sc-91324-SH, LAS1L shRNA Plasmid (m): sc-146656-SH, LAS1L shRNA (h) Lentiviral Particles: sc-91324-V and LAS1L shRNA (m) Lentiviral Particles: sc-146656-V.

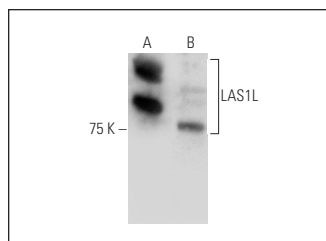
Molecular Weight of LAS1L: 83 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or PC-3 cell lysate: sc-2220.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



LAS1L (D-14): sc-132735. Western blot analysis of LAS1L expression in 293T (A) and PC-3 (B) whole cell lysates.

## STORAGE

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

## RESEARCH USE

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