

PLEKHA7 (N-14): sc-168968

BACKGROUND

PLEKHA7 (pleckstrin homology domain containing, family A member 7), also known as PH domain-containing family A member 7, is a 1,121 amino acid protein that contains one PH domain and two WW domains. Encoded by a gene that maps to human chromosome 11p15.1, PLEKHA7 exists as three alternatively spliced isoforms. Localizing to cell-cell junctions in Caco2 cells, PLEKHA7 interacts with the adherens junction protein p120 in human colon carcinoma cells. PLEKHA7 also colocalizes with zona adherens proteins and is necessary for zonula adherens biogenesis and maintenance. Associated with systolic blood pressure (SBP) and hypertension, PLEKHA7 is a potential target for the prevention or treatment of hypertension. PLEKHA7 is also linked to autoimmune hepatitis type 1, a chronic active hepatitis characterized by hypergammaglobulinemia and autoantibodies.

REFERENCES

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2. Meng, W., et al. 2008. Anchorage of microtubule minus ends to adherens junctions regulates epithelial cell-cell contacts. *Cell* 135: 948-959.
3. Macqueen, D.J., et al. 2008. An update on MyoD evolution in teleosts and a proposed consensus nomenclature to accommodate the tetraploidization of different vertebrate genomes. *PLoS ONE* 3: e1567.
4. Meng, W., et al. 2009. Adherens junction: molecular architecture and regulation. *Cold Spring Harb. Perspect. Biol.* 1: a002899.
5. Shyn, S.I., et al. 2009. Novel loci for major depression identified by genome-wide association study of sequenced treatment alternatives to relieve depression and meta-analysis of three studies. *Mol. Psychiatry* 16: 202-215.
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7. Hong, K.W., et al. 2010. Recapitulation of two genomewide association studies on blood pressure and essential hypertension in the Korean population. *J. Hum. Genet.* 55: 336-341.
8. Pulimeno, P., et al. 2010. PLEKHA7 is an adherens junction protein with a tissue distribution and subcellular localization distinct from ZO-1 and E-cadherin. *PLoS ONE* 5: e12207.

CHROMOSOMAL LOCATION

Genetic locus: PLEKHA7 (human) mapping to 11p15.1; Plekha7 (mouse) mapping to 7 F1.

SOURCE

PLEKHA7 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PLEKHA7 of human origin.

STORAGE

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

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-168968 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PLEKHA7 (N-14) is recommended for detection of PLEKHA7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other PLEKHA family members.

PLEKHA7 (N-14) is also recommended for detection of PLEKHA7 in additional species, including equine and porcine.

Suitable for use as control antibody for PLEKHA7 siRNA (h): sc-96577, PLEKHA7 siRNA (m): sc-152308, PLEKHA7 shRNA Plasmid (h): sc-96577-SH, PLEKHA7 shRNA Plasmid (m): sc-152308-SH, PLEKHA7 shRNA (h) Lentiviral Particles: sc-96577-V and PLEKHA7 shRNA (m) Lentiviral Particles: sc-152308-V.

Molecular Weight of PLEKHA7 isoform 1: 127 kDa.

Molecular Weight of PLEKHA7 isoform 2: 127 kDa.

Molecular Weight of PLEKHA7 isoform 3: 79 kDa.

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) 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.

RESEARCH USE

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

PROTOCOLS

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