

Layilin (Q-20): sc-50048

BACKGROUND

The actin cytoskeleton is crucial for cell shape and motility. The interactions between the cell membrane and actin filaments are important for many cellular processes. Layilin is a widely expressed integral membrane hyaluronan receptor that interacts with the ERM protein family of cytoskeletal membrane linker molecule members, including talin, ezrin, moesin and radixin. Layilin plays an important role in cell adhesion and motility. Layilin is important for the maintenance of the cortical structure in the cell because it mediates signals from the extracellular matrix to the cytoskeleton. In spreading cells, Layilin acts as a membrane-binding site for talin in the peripheral ruffles, and it may play a role in the migration of cells to a wound site.

REFERENCES

- Hirao, M., et al. 1996. Regulation mechanism of ERM (ezrin/radixin/moesin) protein/plasma membrane association: possible involvement of phosphatidylinositol turnover and Rho-dependent signaling pathway. *J. Cell Biol.* 135: 37-51.
- Borowsky, M.L., et al. 1998. Layilin, a novel talin-binding transmembrane protein homologous with C-type lectins, is localized in membrane ruffles. *J. Cell Biol.* 143: 429-442.
- Bono, P., et al. 2001. Layilin, a novel integral membrane protein, is a hyaluronan receptor. *Mol. Biol. Cell* 12: 891-900.
- Weng, L., et al. 2002. Molecular cloning and characterization of human chondrolectin, a novel type I transmembrane protein homologous to C-type lectins. *Genomics* 80: 62-70.
- Weng, L., et al. 2003. Isolation and characterization of chondrolectin (Chodl), a novel C-type lectin predominantly expressed in muscle cells. *Gene* 308: 30821-30829.
- Bono, P., et al. 2005. Layilin, a cell surface hyaluronan receptor, interacts with merlin and radixin. *Exp. Cell Res.* 308: 177-187.

CHROMOSOMAL LOCATION

Genetic locus: LAYN (human) mapping to 11q23.1.

SOURCE

Layilin (Q-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Layilin 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-50048 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Layilin (Q-20) is recommended for detection of Layilin of 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).

Layilin (Q-20) is also recommended for detection of Layilin in additional species, including canine.

Suitable for use as control antibody for Layilin siRNA (h): sc-60923, Layilin shRNA Plasmid (h): sc-60923-SH and Layilin shRNA (h) Lentiviral Particles: sc-60923-V.

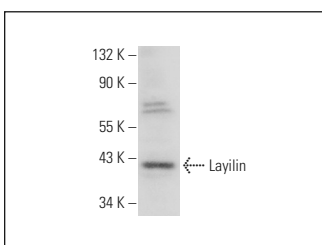
Molecular Weight of Layilin: 43 kDa.

Positive Controls: U-251-MG whole cell lysate: sc-364176.

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



Layilin (Q-20): sc-50048. Western blot analysis of Layilin expression in U-251-MG whole cell lysate.

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.