

Aciculin (H-57): sc-98436

BACKGROUND

Aciculin, also known as PGM5 (phosphoglucomutase 5) or PGMRP, is a 567 amino acid protein that belongs to the phosphoglucomutase family of phosphotransferases, which play an important role in the interconversion of glucose-1-phosphate and glucose-6-phosphate. Localized to the cell junction and expressed at high levels in smooth and cardiac muscle, Aciculin binds magnesium as a cofactor and interacts with dystrophin and utrophin, possibly playing a role in cytoskeletal organization and function. Aciculin exists as 2 alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 9, which houses over 900 genes and comprises nearly 4% of the human genome.

REFERENCES

1. Belkin, A.M., et al. 1994. Expression and localization of the phosphoglucomutase-related cytoskeletal protein, Aciculin, in skeletal muscle. *J. Cell Sci.* 107: 1993-2003.
2. Belkin, A.M., et al. 1995. Localization of utrophin and Aciculin at sites of cell-matrix and cell-cell adhesion in cultured cells. *Exp. Cell Res.* 221: 132-140.
3. Belkin, A.M., et al. 1995. Association of Aciculin with dystrophin and utrophin. *J. Biol. Chem.* 270: 6328-6337.
4. Belkin, A.M., et al. 1996. Localization of crinin (dystroglycan) at sites of cell-matrix and cell-cell contact: recruitment to focal adhesions is dependent upon extracellular ligands. *Cell Adhes. Commun.* 4: 281-296.
5. Moiseeva, E.P., et al. 1996. A novel dystrophin/utrophin-associated protein is an enzymatically inactive member of the phosphoglucomutase superfamily. *Eur. J. Biochem.* 235: 103-113.
6. Rezvani, M., et al. 1996. Dystrophin, vinculin and Aciculin in skeletal muscle subject to chronic use and disuse. *Med. Sci. Sports Exerc.* 28: 79-84.
7. Moiseeva, E.P., et al. 1997. Characterisation of the promoter which regulates expression of a phosphoglucomutase-related protein, a component of the dystrophin/utrophin cytoskeleton predominantly expressed in smooth muscle. *Eur. J. Biochem.* 248: 634-643.

CHROMOSOMAL LOCATION

Genetic locus: PGM5 (human) mapping to 9q21.11; Pgm5 (mouse) mapping to 19 B.

SOURCE

Aciculin (H-57) is a rabbit polyclonal antibody raised against amino acids 428-484 mapping near the C-terminus of Aciculin 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.

STORAGE

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

APPLICATIONS

Aciculin (H-57) is recommended for detection of Aciculin 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).

Aciculin (H-57) is also recommended for detection of Aciculin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Aciculin siRNA (h): sc-72431, Aciculin siRNA (m): sc-72432, Aciculin shRNA Plasmid (h): sc-72431-SH, Aciculin shRNA Plasmid (m): sc-72432-SH, Aciculin shRNA (h) Lentiviral Particles: sc-72431-V and Aciculin shRNA (m) Lentiviral Particles: sc-72432-V.

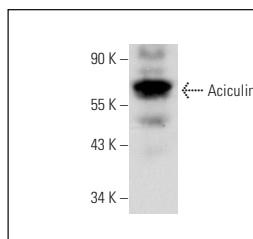
Molecular Weight of Aciculin: 56 kDa.

Positive Controls: A-10 cell lysate: sc-3806.

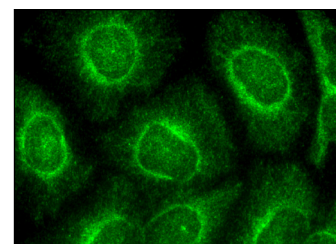
RECOMMENDED SECONDARY REAGENTS

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.

DATA



Aciculin (H-57): sc-98436. Western blot analysis of Aciculin expression in A-10 whole cell lysate.



Aciculin (H-57): sc-98436. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

RESEARCH USE

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

MONOS
Satisfaction
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Try **Aciculin (14F8): sc-73613** or **Aciculin (F-11): sc-374530**, our highly recommended monoclonal alternatives to Aciculin (H-57).