Aciculin (14F8): sc-73613

BACKGROUND

Aciculin, also known as PGM5 (phosphoglucomutase 5) or PGMRP, is a 567 amino acid protein that belongs to the phosphoglucomutase family of phosphatotransferases, 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 two 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.

CHROMOSOMAL LOCATION

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

SOURCE

Aciculin (14F8) is a mouse monoclonal antibody raised against Aciculin of human origin.

PRODUCT

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Aciculin (14F8) is available conjugated to agarose (sc-73613 AC), 500 µg/0.25 ml agarose in 1 ml, for WB, HCIP and ELISA; to either phycoerythrin (sc-73613 PE), fluorescein (sc-73613 FITC), Alexa Fluor® 488 (sc-73613 AF488), Alexa Fluor® 546 (sc-73613 AF546), Alexa Fluor® 594 (sc-73613 AF594) or Alexa Fluor® 647 (sc-73613 AF647), 200 µg/ml, for WB (RGB), IF, HCIP and FCM; and to either Alexa Fluor® 680 (sc-73613 AF680) or Alexa Fluor® 790 (sc-73613 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

Aciculin (14F8) is recommended for detection of Aciculin of mouse, rat, human, bovine and avian 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with phosphoglucomutase.


Molecular Weight of Aciculin: 56 kDa.

Positive Controls: A-10 cell lysate: sc-3806 or human heart extract: sc-363763.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistolmount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA


SELECT PRODUCT CITATIONS


RESEARCH USE

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

PROTOCOLS

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

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