Calponin 3 (A-2): sc-271188

**BACKGROUND**

Calponin regulates smooth muscle cell contraction and is a marker of smooth muscle cell differentiation. Calponin, an Actin- and Tropomyosin-binding protein, is characterized as an inhibitory factor of smooth-muscle actomyosin activity. Calponin is implicated in the regulation of smooth muscle contraction through its interaction with F-Actin and inhibition of the Actin-activated MgATPase activity of phosphorylated Myosin. Both properties are lost following phosphorylation (primarily at Serine 175) by protein kinase C or calmodulin-dependent protein kinase II. The three forms of Calponin, Calponin 1 (basic Calponin), Calponin 2 (neutral Calponin) and Calponin 3 (acidic Calponin) are found in smooth muscle tissue. Additionally, Calponin 2 is found in heart muscle tissue and Calponin 3 is found in the brain.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: CNN3 (human) mapping to 1p21.3; Cnn3 (mouse) mapping to 3 G1.

**SOURCE**

Calponin 3 (A-2) is a mouse monoclonal antibody raised against amino acids 275-329 mapping at the C-terminus of Calponin 3 of human origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Calponin 3 (A-2) is available conjugated to agarose (sc-271188 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271188 HRP), 200 µg/ml, for WB, IHC/IP and ELISA; to either phycoerythrin (sc-271188 PE), fluorescein (sc-271188 FITC), Alexa Fluor® 488 (sc-271188 AF488), Alexa Fluor® 546 (sc-271188 AF546), Alexa Fluor® 594 (sc-271188 AF594) or Alexa Fluor® 647 (sc-271188 AF647), 200 µg/ml, for WB (RGB), IF, IHC/IP and FCM; and to either Alexa Fluor® 680 (sc-271188 AF680) or Alexa Fluor® 790 (sc-271188 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

Calponin 3 (A-2) is recommended for detection of Calponin 3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 1:50-1:1500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Molecular Weight (predicted) of Calponin 3: 36 kDa.

Molecular Weight (observed) of Calponin 3: 37-41 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or SK-N-SH cell lysate: sc-2410.

**DATA**

**SELECT PRODUCT CITATIONS**


**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.

**PROTOCOLS**

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