
Calponin 1 + 2 + 3 Rabbit pAb

Catalog Number: bs-4902R

Target Protein: Calponin 1 + 2 + 3

Concentration: 1mg/ml

Form: Liquid

Host: Rabbit

Clonality: Polyclonal

Isotype: IgG

Applications: IHC-P (1:100-500), IHC-F (1:100-500), IF (1:50-200), Flow-Cyt (1µg/Test)

Reactivity: Rat (predicted:Human, Mouse, Pig, Cow, Dog, Horse)

Predicted MW: 34 kDa

Entrez Gene: 1265

Swiss Prot: Q99439

Source: KLH conjugated synthetic peptide derived from human Calponin 1/2/3: 101-200/309.

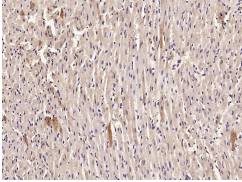
Purification: affinity purified by Protein A

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

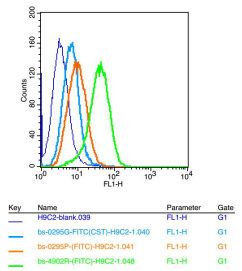
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

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.

VALIDATION IMAGES



Paraformaldehyde-fixed, paraffin embedded (Rat heart); Antigen retrieval by microwave in sodium citrate buffer (pH6.0) ; Block endogenous peroxidase by 3% hydrogen peroxide for 30 minutes; Blocking buffer (3% BSA) at RT for 30min; Antibody incubation with (Calponin 1 + 2 + 3) Polyclonal Antibody, Unconjugated (bs-4902R) at 1:400 overnight at 4°C, followed by conjugation to the secondary antibody (labeled with HRP) and DAB staining.



Positive control: H9C2(2% Paraformaldehyde-fixed) Isotype Control Antibody: Rabbit IgG; Dilution: 1µg in 100 µl 1 X PBS containing 0.5% BSA Secondary Antibody: Goat anti-rabbit IgG-FITC; Dilution: 1:200 in 1 X PBS containing 0.5% BSA Primary Antibody: rabbit Anti-Calponin 1 + 2 + 3 (bs-4902R); Dilution: 1µg in 100 µl 1X PBS containing 0.5% BSA

PRODUCT SPECIFIC PUBLICATIONS

[IF=10.6] Wang Weitie. et al. 3D-printing hydrogel programmed released exosomes to restore aortic medial degeneration through inhibiting VSMC ferroptosis in aortic dissection. J NANOBIOTECHNOL. 2024 Dec;22(1):1-16 WB ; Mouse . 39367412