

Anti-alpha smooth muscle Actin ACTA2 Rabbit Monoclonal Antibody

Catalog Number: M01072-3

About ACTA2

Activated by icilin, eucalyptol, menthol, cold and modulation of intracellular pH. Involved in menthol sensation. Permeable for monovalent cations sodium, potassium, and cesium and divalent cation calcium.

Overview

Product Name	Anti-alpha smooth muscle Actin ACTA2 Rabbit Monoclonal Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-alpha smooth muscle Actin ACTA2 Rabbit Monoclonal Antibody catalog # M01072-3. Tested in WB, IHC, ICC/IF, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Monoclonal CAD-1
Formulation	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P62736

Technical Details

Immunogen	A synthesized peptide derived from human alpha smooth muscle Actin
Isotype	Rabbit IgG
Form	Liquid
Concentration	Actual concentration vary by lot. Use suggested dilution ratio to decide dilution procedure.
Purification	Affinity-chromatography
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used:

	WB 1:1000-1:5000 IHC 1:100-1:500 ICC/IF 1:100-1:500 FC 1:30
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Anti-alpha smooth muscle Actin ACTA2 Rabbit Monoclonal Antibody (M01072-3) Images

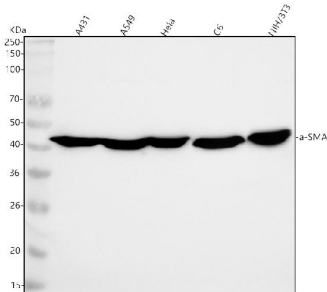


Figure 1. Western blot analysis of alpha-SMA using anti-alpha-SMA antibody (M01072-3).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human A431 whole cell lysates,

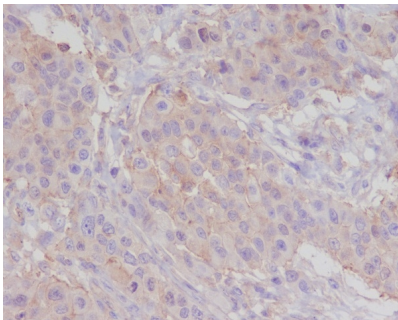
Lane 2: human A549 whole cell lysates,

Lane 3: human Hela whole cell lysates.

Lane 4: rat C6 whole cell lysates.

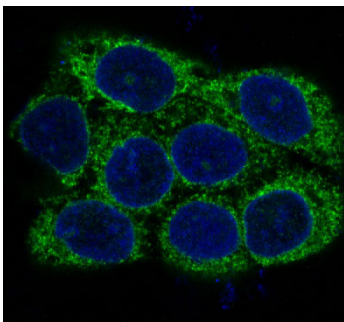
Lane 5: mouse NIH/3T3 whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-alpha-SMA antigen affinity purified monoclonal antibody (Catalog # M01072-3) at 1:1000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:1000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for alpha-SMA at approximately 42 kDa. The expected band size for alpha-SMA is at 42 kDa.



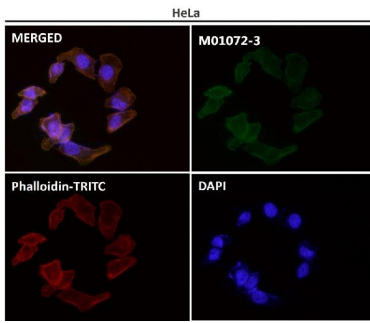
Immunohistochemical analysis of paraffin-embedded human breast carcinoma, using alpha smooth muscle Actin Antibody(M01072-3)

ACTA2 was detected in paraffin-embedded tissue section. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ACTA2 Antibody (M01072-3)overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Immunofluorescent analysis of A431 cells, using alpha smooth muscle Actin Antibody.

Immunofluorescent analysis using the Antibody at 1:150



dilution.

72 Publications Citing This Product

1. PubMed ID: -, Supriono S, Kalim H, Permatasari N, Susianti H. Moringa oleifera Inhibits Liver Fibrosis Progression by Inhibition of alpha-Smooth Muscle Actin, Tissue Inhibitors of Metalloproteinases-1, and Collagen-1 in Rat Model Liver Fibrosis. Open Access Maced J Med Sci [Int
2. PubMed ID: 31893573, Fang L, Wang KK, Zhang PF, Li T, Xiao ZL, Yang M, Yu ZX. Nucleolin promotes Ang II-induced phenotypic transformation of vascular smooth muscle cells by regulating EGF and PDGF-BB. J Cell Mol Med. 2020 Jan;24(2):1917-1933. doi:10.1111/jcmm.14888. Epub 2020 Jan 1. PMID
3. PubMed ID: 32908568, Shen J, Wei W, Wang X, Yang J, Lu L, Lv X, Xue X. Proliferation of Vascular Smooth Muscle Cells under ox-LDL Is Regulated by Alismatis rhizoma Decoction via Inhibiting ERK1/2 and miR-17-92a Cluster Activation. Evid Based Complement Alternat Med. 2020 Aug 22;2020:72

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