Datasheet for ABIN968947

anti-Smooth Muscle Actin antibody

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Overview

Quantity:	100 µL
Target:	Smooth Muscle Actin (ACTA2)
Reactivity:	Human, Rat, Mouse, Monkey
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Smooth Muscle Actin antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Flow Cytometry (FACS), ELISA, Immunocytochemistry (ICC)

Product Details

Immunogen:	Synthesized peptide of human ACTA2.
Clone:	4A4
Isotype:	IgG1

Target Details

Target:	Smooth Muscle Actin (ACTA2)
Alternative Name:	ACTA2 (ACTA2 Products)
Background:	Description: The protein encoded by this gene belongs to the actin family of proteins, which are highly conserved proteins that play a role in cell motility, structure and integrity. Alpha, beta and gamma actin isoforms have been identified, with alpha actins being a major constituent of the contractile apparatus, while beta and gamma actins are involved in the regulation of cell

Target Details

	motility. This actin is an alpha actin that is found in skeletal muscle. Defects in this gene cause aortic aneurysm familial thoracic type 6. Multiple alternatively spliced variants, encoding the same protein, have been identified. Aliases: AAT6, ACTSA, α-Smooth Muscle Actin
Molecular Weight:	42 kDa
Gene ID:	59
HGNC:	59
Pathways:	Myometrial Relaxation and Contraction, Skeletal Muscle Fiber Development

Application Details

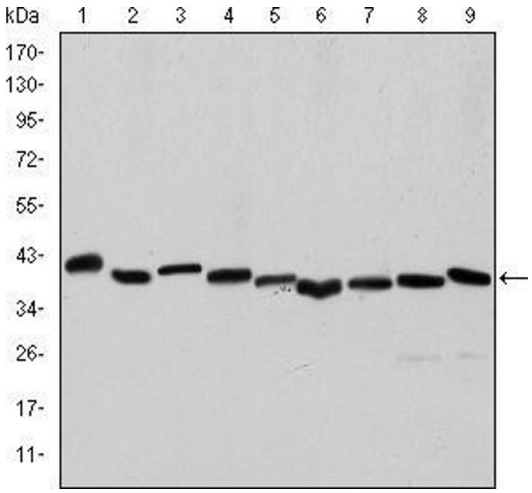
Application Notes:	ELISA: 1:10000, WB: 1:500 - 1:2000, IHC: 1:200 - 1:1000, ICC: 1:200 - 1:1000, FCM: 1:200 - 1:400
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Ascitic fluid containing 0.03 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C/-20 °C
Storage Comment:	4°C, -20°C for long term storage

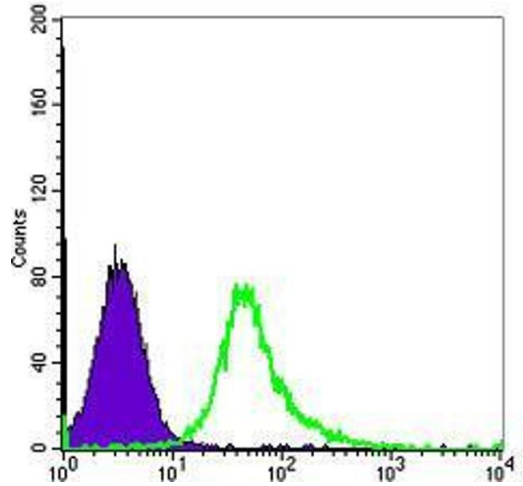
Publications

Product cited in:	Shimojima, Yamamoto: "ACTA2 is not a major disease-causing gene for moyamoya disease." in: **Journal of human genetics**, Vol. 54, Issue 11, pp. 687-8, (2009) (PubMed). Morisaki, Akutsu, Ogino, Kondo, Yamanaka, Tsutsumi, Yoshimuta, Okajima, Matsuda, Minatoya, Sasaki, Tanaka, Ishibashi-Ueda, Morisaki: "Mutation of ACTA2 gene as an important cause of familial and nonfamilial nonsyndromatic thoracic aortic aneurysm and/or dissection (TAAD)." in: **Human mutation**, Vol. 30, Issue 10, pp. 1406-11, (2009) (PubMed).



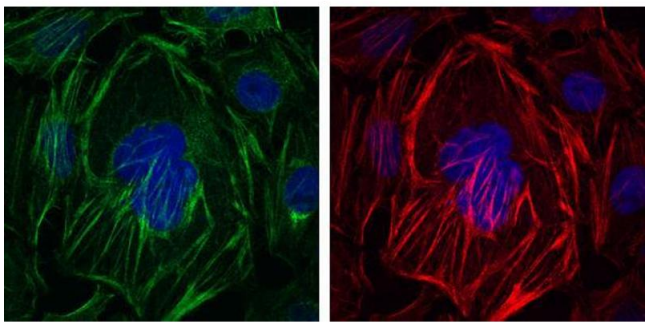
Western Blotting

Image 1. Western blot analysis using ACTA2 mouse mAb against Hela (1), A431 (2), Jurkat (3), K562 (4), HEK293 (5), HepG2 (6), NIH/3T3 (7), PC-12 (8) and Cos7 (9) cell lysate.



Flow Cytometry

Image 2. Flow cytometric analysis of Hela cells using ACTA2 mouse mAb (green) and negative control (purple).



Immunofluorescence

Image 3. Immunofluorescence analysis of HepG2 cells using ACTA2 mouse mAb (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

Please check the product details page for more images. Overall 5 images are available for ABIN968947.