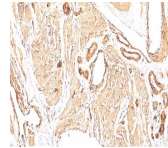


Smooth Muscle Actin Monoclonal Mouse Antibody (1A4)



Product Description

Actin is a major component of the cytoskeleton and is present in most cell types. This MAb is highly specific to actin from smooth muscles. Its epitope lies in the first four N-terminal amino acids. This MAb does not stain cardiac or skeletal muscle; however, it does stain myofibroblasts and myoepithelial cells. This antibody could be used together with anti-muscle specific actin and myogenin in making a diagnosis of smooth muscle and skeletal muscle tumors. In most cases of rhabdomyosarcoma, this antibody yields negative results whereas anti-muscle specific actin and myogenin are positive. Leiomyosarcomas are positive only with anti-muscle specific actin and anti-smooth muscle actin and are negative with anti-myogenin.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

Stock status: Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email order@biotium.com to inquire about stock status and lead times before placing your order.

Catalog number key for antibody number 0665, Anti-Smooth Muscle Actin (1A4)

Product attributes

Antibody number	#0665
Antibody reactivity (target)	Smooth Muscle Actin
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	1A4
Isotype	IgG2a, kappa
Molecular weight	42 kDa
Synonyms	ACTA2, Actin Alpha 2 Smooth Muscle Aorta, Actin Alpha Smooth Muscle, Actin Aortic Smooth Muscle, Actin Vascular Smooth Muscle, ACTSA, ACTVS, Alpha 2 Actin, Alpha Cardiac Actin, Alpha-actin-2, ASMA, Cell Growth-inhibiting Gene 46 Protein, Growth Inhibiting Gene 46
Human gene symbol	ACTA2
Entrez gene ID	59
SwissProt	P62736
Unigene	500483
Immunogen	N-Terminal decapeptide of alpha smooth muscle isoform of actin and conjugated to KLH.
Antibody target cellular	Cytoskeleton
Verified antibody applications	Flow (verified), IF (verified), IHC (FFPE) (verified)
Species reactivity	Baboon, Cat, Chicken, Cow, Dog, Goat, Guinea pig, Human, Monkey, Mouse, Pig, Rabbit, Rat, Sheep
Antibody application notes	Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 ug/mL, Immunohistology formalin-fixed 0.25-0.5 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user
Positive control	Blood vessels in all tissues, smooth muscle or leiomyosarcoma
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Antibody research areas	Cytoskeleton
Cell/tissue expression	Smooth muscle

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405
BNC88	CF®488A	490/515	488	GFP, FITC
BNC68	CF®568	562/583	532, 561	RFP, TRITC
BNC94	CF®594	593/614	561	Texas Red®
BNC40	CF®640R	642/662	633-640	Cy®5
BNC47	CF®647	650/665	633-640	Cy®5
BNCB	Biotin	N/A	N/A	N/A
BNUB	Purified	N/A	N/A	N/A
BNUM	Purified, BSA-free	N/A	N/A	N/A

Dye Features

- [CF®405S Features](#)
- [CF®488A Features](#)
- [CF®568 Features](#)
- [CF®594 Features](#)
- [CF®640R Features](#)
- [CF®647 Features](#)

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