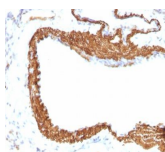


# Smooth Muscle Actin Monoclonal Mouse Antibody (1A4 + ACTA2/791)



## Product Description

Actin is a major component of the cytoskeleton and is present in most cell types. It is highly specific to actin from smooth muscles. 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](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order.

**Catalog number key for antibody number 1203, Anti-Smooth Muscle Actin (ACTA2/791 1A4)**

## Product attributes

Antibody number	#1203
Antibody reactivity (target)	Smooth Muscle Actin
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	1A4 + ACTA2/791
Isotype	IgG's
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 (1A4); Recombinant full-length human ACTA2 protein (ACTA2/791)
Verified antibody applications	IF (verified), IHC (FPPE) (verified)
Antibody target cellular localization	Cytoskeleton
Species reactivity	Human, Rat
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. Predicted to show broad reactivity. 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
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum ( <i>Bos taurus</i> ), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.
Cell/tissue expression	Smooth muscle

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	<a href="#">CF®405S Features</a>
BNC88	CF®488A	490/515	488	GFP, FITC	<a href="#">CF®488A Features</a>
BNC68	CF®568	562/583	532, 561	RFP, TRITC	<a href="#">CF®568 Features</a>
BNC94	CF®594	593/614	561	Texas Red®	<a href="#">CF®594 Features</a>
BNC40	CF®640R	642/662	633-640	Cy®5	<a href="#">CF®640R Features</a>
BNC47	CF®647	650/665	633-640	Cy®5	<a href="#">CF®647 Features</a>
BNC74	CF®740	742/767	633-685	775/50	<a href="#">CF®740 Features</a>
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	

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Product link: <https://biotium.com/product/monoclonal-anti-smooth-muscle-actin-acta2791-1a4/>