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)

Call us: 800-304-5357

Antibody reactivity (target) Antibody type Host species Mouse Clonality Monoclonal Clone 1A4 Isotype IgG2a, kappa Molecular weight A72, Actin Alpha 2 Smooth Muscle, Actin Aoria, Caronoth Muscle, Actin Aoria, Caronoth Muscle, Actin, Alpha, Cardina, Actin, Alpha, Cardina, Actin, Alpha, Cardina, Actin, Alpha, Actin, Alpha, Cardina, Actin, Alpha, Actin, Alpha, Actin, Alpha, Cardina, Actin, Alpha, Actin, Alpha, Cardina, Actin, Alpha, Cardina, Actin, Alpha, Actin, Alpha, Cardina, Actin, Actin, Alpha, Cardina, A	Product attributes				
Antibody type Host species Mouse Cionality Monoclonal Cione 1A4 Isotype IgG2a, kappa Molecular weight Synonyms ACTA2, Actin Alpha 2 Smooth Muscle, Actin Aortic Smooth Muscle, Actin Vascular Smooth Muscle, Actin Aortic Smooth Muscle, Actin Alpha Cardiac Actin, Alpha-actin-2, ASMA, Cell 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 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, Immunofiluorescence: 0.5-1 ug/mL, Immunofiluorescence: 0.5-1 ug/mL, Immunofiluorescence: 0.5-1 ug/mL, Immunofiluorescence: 0.5-1 ug/mL, Staining of formalin-fixed classues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min tollowed by cooling at RT for 20 minutes, Flow Cytometry 0.5-1 ug/mllion 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 Storage Conditions Flow the determined by user Positive control Blood vessels in all tissues, control tion-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	Antibody number	#0665			
Host species Mouse	Antibody reactivity (target)	Smooth Muscle Actin			
Clone 1A4 Isotype IgG2a, kappa Molecular weight 42 kDa Synonyms ACTA2, Actin Alpha 2 Smooth Muscle, Actin Andria Smooth Muscle, Actin, Alpha 2 Actin, Alpha Cardiac Actin, Alpha-actin-2, ASMA, Cell Growth-inhibiting Gene 46 Protein, 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 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, Istaining of formalin-fixed 0.25-0.5 ug/mL, Staining of formalin-fixed dissues 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 Rom temperature Storage Conditions Storage Conditions For research use only (RUO) Antibody/conjugate For research use only (RUO) Antibody/conjugate formulation For research use only (RUO)	Antibody type	Primary			
Clone IA4 Isotype IgG2a, kappa	Host species	Mouse			
Isotype IgG2a, kappa	Clonality	Monoclonal			
Molecular weight 42 kDa	Clone	1A4			
ACTA2, Actin Alpha 2 Smooth Muscle Actin Acric Smooth Muscle, Actin Alpha Smooth Muscle, Actin Actic Smooth Muscle, Actin Actin Shooth Muscle, Actin Actin Shooth Muscle, Actin Actin Shooth Muscle, Actin Actin Alpha Cardiac Actin, Alpha 2 Actin, Alpha Cardiac Ac	Isotype	IgG2a, kappa			
Aorta, Actin Alpha Smooth Muscle, Actin Artic Smooth Muscle, Actin Vascular Smooth Muscle, Actin Vascular Smooth Muscle, Actin Xacular Actin, Alpha Cardiac Actin, Actin Cardiac Actin, Actin Cardiac Actin, Actin Cardiac Actin Actin Cardiac Actin Actin Cardiac Actin Cardi	Molecular weight	42 kDa			
Entrez gene ID SwissProt P62736 Unigene 500483 Immunogen N-Terminal decapeptide of alpha smooth muscle isoform of actin and conjugated to KLH. Antibody target cellular Cytoskeleton 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 the politic phile of the politic phile of the politic phile of the politic phile of the phile	Synonyms	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,			
SwissProt Unigene 500483 Immunogen N-Terminal decapeptide of alpha smooth muscle isoform of actin and conjugated to KLH. Antibody target cellular 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 0.25-0.5 ug/mL, Staining of formalin-fixed 0.25-0.5 ug/mL, Staining of formalin-fixed old susues 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/mlilion 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 Storage Conditions Storage Tondition Guaranteed for at least 24 months from date of receipt when stored as recommended Regulatory status For research use only (RUO) Antibody/conjugate formulation BSA/0.05% azide, HPP conjugates: 0.1 mg/mL in PBS/0.15% azide, Purified, BSA-free: 1 mg/mL in PBS without azide	Human gene symbol	ACTA2			
Unigene Sou483	Entrez gene ID	59			
N-Terminal decapeptide of alpha smooth muscle isoform of actin and conjugated to KLH.	SwissProt	P62736			
muscle isoform of actin and conjugated to KLH. Antibody target cellular Verified antibody applications 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. Immunofiluorescence: 0.5-1 ug/mL, Oplimal of formalin-fixed tissues requires bolling 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/mlilion 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 Storage Conditions Storage Conditions Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C Guaranteed for at least 24 months from date of receipt when stored as recommended Regulatory status For research use only (RUO) Antibody/conjugate formulation BSA/0.05% azide, HPP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05	Unigene	500483			
Positive control Blood vessels in all tissues, smooth muscle or leiomyosarcoma	Immunogen	muscle isoform of actin and conjugated			
(verified)	Antibody target cellular	Cytoskeleton			
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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 BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.15% BSA, Purified: 0.2 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 application notes	direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 ug/mL, Immunohistology 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			
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Antibody/conjugate 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, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide	Shelf life	date of receipt when stored as			
formulation 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	Regulatory status	For research use only (RUO)			
Antibody research areas Cytoskeleton		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			
	Antibody research areas	Cytoskeleton			

Email: btinfo@biotium.com

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

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