

Smooth Muscle Actin Antibody [clone 1A4] (V2001)

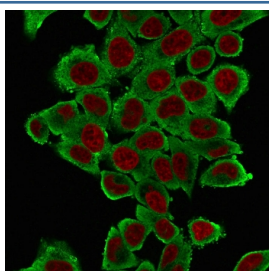
Catalog No.	Formulation	Size
V2001-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2001-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20
V2001SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100
V2001IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7



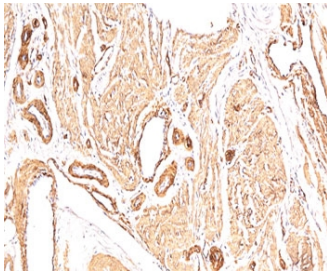
Citations (23)

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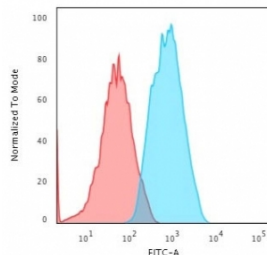
Species Reactivity	Human, Mouse, Rat
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	1A4
Purity	Protein G affinity chromatography
UniProt	P62736
Gene ID	59
Localization	Cytoplasmic
Applications	Flow Cytometry : 1-2ug/million cells Immunofluorescence : 1-4ug/ml Immunohistochemistry (FFPE) : 0.25-0.5ug/ml for 30 min at RT Western Blot : 2-4ug/ml
Limitations	This Smooth Muscle Actin antibody is available for research use only.



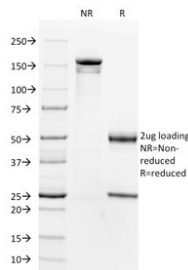
Immunofluorescent staining of fixed human HeLa cells with Smooth Muscle Actin antibody (clone 1A4, green) and NucSpot nuclear stain (red).



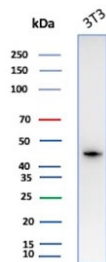
IHC: FFPE human leiomyosarcoma stained with Smooth Muscle Actin antibody (clone 1A4).



Flow cytometry testing of fixed human HeLa cells with Smooth Muscle Actin antibody (clone 1A4); Red=isotype control, Blue= Smooth Muscle Actin antibody.



SDS-PAGE analysis of purified, BSA-free Smooth Muscle Actin antibody (clone 1A4) as confirmation of integrity and purity.



Western blot testing of mouse NIH 3T3 cell lysate with Smooth Muscle Actin antibody.

Description

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

Application Notes

Variations in protocols, secondaries and substrates may require the Smooth Muscle Actin antibody to be titrated up or down for optimal performance.

1. No special pretreatment is required for the immunohistochemical staining of FFPE tissue.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

An N-Terminal decapeptide of the alpha smooth muscle isoform was used as the immunogen for this Smooth Muscle Actin antibody.

Storage

Store the Smooth Muscle Actin antibody at 2-8oC (aliquot/freeze the azide-free format).

Alternate Names

ACTA2, Smooth form antibody

References (1)