

Actin, Smooth Muscle (Leiomyosarcoma Marker) Antibody

Mouse Monoclonal Antibody [Clone 1A4; same as asm-1]

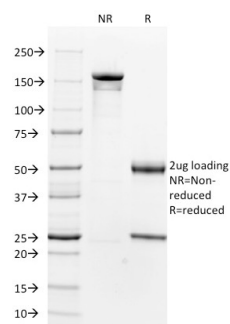
| Catalog No | Format | Size |
|---------------|-----------------------------------|----------|
| 59-MSM1-P0 | Purified Ab with BSA and Azide | 200ug/ml |
| 59-MSM1-P1 | Purified Ab with BSA and Azide | 200ug/ml |
| 59-MSM1-P1ABX | Purified Ab WITHOUT BSA and Azide | 1.0mg/ml |

| Applications | Tested Dillution |
|----------------------------|---------------------|
| Flow Cytometry (Flow) | 1-2ug/million cells |
| Immunofluorescence (IF) | 1-3ug/ml |
| Immunohistochemistry (IHC) | 1-2ug/ml |
| Western Blot (WB) | 2-4ug/ml |

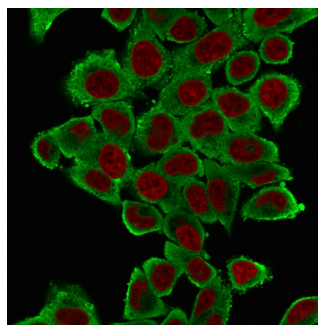
| Product Details | |
|-------------------------------|-------------------------------------------------------------------------------------------------|
| Clone | 1A4; same as asm-1 |
| Gene Name | ACTA2 |
| Immunogen | N-Terminal decapeptide of alpha smooth muscle isoform of actin and conjugated to KLH. |
| Host | Mouse |
| Clonality | Monoclonal |
| Isotype / Light Chain | IgG2a / Kappa |
| Mol. Weight of Antigen | 42kDa |
| Cellular Localization | Cytoplasm, Cytoskeleton |
| Species Reactivity | Baboon, Cat, Chicken, Cow, Dog, Goat, Guinea Pig, Human, Monkey, Mouse, Pig, Rabbit, Rat, Sheep |
| Positive Control | HeLa cells, smooth muscle or leiomyosarcoma, Mouse 3T3 cells |

**Optimal dilution for a specific application should be determined.*

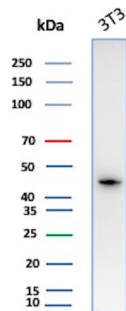
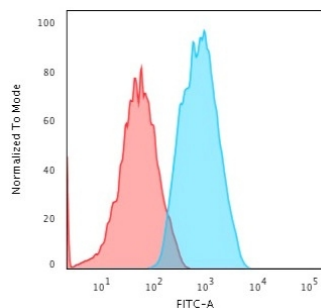
Product Images for Actin, Smooth Muscle (Leiomyosarcoma Marker) Antibody



SDS-PAGE Analysis of Purified Smooth Muscle Actin Mouse Monoclonal Antibody (1A4). Confirmation of Integrity and Purity of Antibody.

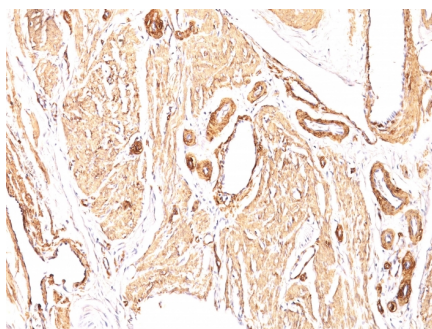


Immunofluorescence Analysis of HeLa cells labeling Smooth Muscle Actin with Smooth Muscle Actin Mouse Monoclonal Antibody (1A4) followed by Goat anti-Mouse IgG-CF488(Green). The nuclear counterstain is NucSpot (Red).



Flow Cytometric Analysis of Human HeLa cells using Smooth Muscle Actin Mouse Monoclonal Antibody (1A4) followed by Goat anti-Mouse IgG-CF488 (Blue); Isotype control (Red).

Western Blot Analysis of Mouse 3T3 lysate using ACTA2 Mouse Monoclonal Antibody (1A4)



Formalin-fixed, paraffin-embedded human Leiomyosarcoma stained with Smooth Muscle Actin Mouse Monoclonal Antibody (1A4).

Specificity & Comments

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.

Research Areas

Cardiovascular, Mesenchymal Stem Cell Differentiation, Muscle, Signal Transduction

Known Applications & Suggested Dilutions

Flow Cytometry (1-2ug/million cells) | Immunofluorescence (1-4ug/ml) | Immunohistochemistry (Formalin-fixed) (0.25-0.5ug/ml for 30 minutes at RT), (Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes) | Optimal dilution for a specific application should be determined.

Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis.

There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.

Supplied As

200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage and Stability

Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.