

Actin (alpha Smooth Muscle). Mouse Monoclonal Antibody

BACKGROUND

Among the six actin isoforms described in mammals, two are found in virtually all cells (β - and γ -cytoplasmic), two are detected in smooth muscle cells (α - and γ -smooth muscle) and two are present in striated muscles, one predominantly in skeletal (α -skeletal) and one in cardiac (α -cardiac) muscle cells. These actin isoforms differ slightly in their N-terminus and the sequences of each of them are perfectly conserved in higher vertebrates. Alpha-smooth muscle actin is abundant in vascular and visceral smooth muscle cells. In addition, it has also been shown to appear in stress fibers of fibroblastic cells during pathological situations involving contractile phenomena such as wound healing and fibrocontractive diseases.

IMMUNOGEN

Hybridoma produced by the fusion of splenocytes from BALB/c mice immunized with a peptide derived from the N-terminus of α -smooth muscle actin and Sp 2/0 mouse myeloma cells. The epitope that is recognized by α -SM1 is Ac-EEED..

POSITIVE CONTROL/TISSUE EXPRESSION

COMMENTS

Antibody can be used for Western blotting (1:10,000-1:50,000), immunohistochemistry on paraffin-embedded or frozen tissues (1:1000-1:10,000), immunocytochemistry, immuno electron microscopy and ELISA. Optimal concentration should be evaluated by serial dilutions.

ORDERING INFORMATION

CATALOG NUMBER
X1722M

SIZE
50 μ g
FORM
Unconjugated

HOST/CLONE
Mouse Clone α -SM1

FORMULATION
Provided as solution in phosphate buffered saline with 0.08% sodium azide

CONCENTRATION
See vial for concentration

ISOTYPE
IgG2a

APPLICATIONS
Western Blot, Immunohistochemistry, Immuno Electron Microscopy, ELISA

SPECIES REACTIVITY
Human, Rat, Chicken

ACCESSION NUMBER
P62736, Human

PURIFICATION

Protein A/G Chromatography

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

STORAGE CUSTOMER

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

REFERENCES

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4. Vyalov, S. L., et al. Rat alveolar myofibroblasts acquire alpha-smooth muscle actin expression during bleomycin-induced pulmonary fibrosis. *Am J Pathol* 1993 143, 1754-1765.
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8. Babaev, V.R., Bobryshev, Y.V., Stenina, O.V., Tararak, E.M. and Gabani, G. (1990). Heterogeneity of smooth muscle in atheromatous plaque of human aorta. *American Journal of Pathology* 136, 1031-42.
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13. De Visscher, G., Plusquin, R., Mesure, L., Flameng, W. (2010). Selection of an immunohistochemical panel for cardiovascular research in sheep. *Appl Immunohistochem Mol Morphol* 18, 382-91.

PRODUCT SPECIFIC REFERENCES