



Peninsula Laboratories, LLC

A Member of the Bachem Group

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Monoclonal Antibody to Human Smooth Muscle Cells

Monoclonal antibody HM19/2 recognizes smooth muscle cells in culture and in various organs. It is suitable for the differentiation of myogenic from neurogenic and other tumours, and for the typing of monocytic leukaemia. The antibody cross-reacts with smooth muscle cells of all mammalian species tested so far.

Product Number:	T-1203
Clone:	HM 19/2
Host species, isotype:	Rat IgM
Quantity:	2mg
Format:	Affinity purified, liquid Supplied as 0.5ml solution. This stock solution contains 4mg/ml IgM, phosphate buffered saline pH 7.2 (PBS), and 0.01% sodium azide as a preservative.
Stability:	Original vial: 1 year at 4° - 8°C.
Applications:	Tested for immunohistochemistry (IHC). Approximate working dilution for IHC: Frozen sections: 40µg/ml (1:100) Paraffin sections: not tested. Optimal dilutions should be determined by the end user. Suggested positive control: Human umbilical cord. Antigen, epitope: HM19/2 precipitates an antigen which resolves into two protein bands of 36 kDa and 38kDa, respectively, under reduced conditions. The antigen is sensitive to formaldehyde and glutaraldehyde fixation. The epitope has not been further characterized.
Antigen distribution:	Isolated cells: Positive with smooth muscle cells of various organs, positive on 10-20% cultured monocytes/macrophages. Some side reaction with established melanoma and carcinoma cell lines were reported. Negative with fibroblasts and freshly isolated blood cells. Tissue sections: Positive with all smooth muscle cells. Negative with macrophages, endothelial cells, striated muscle cells, fibroblasts. Weak cross reactivity was reported with dendritic like cells in thymus and granulomatous tissues. In dogs the mammalian myoepithelium stains positive.



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Specificity:

Human: smooth muscle cells.

Other species: positive in all mammalian species tested so far:
rabbit, guinea pig, pig, dog.

Selected references

Roessner, A., E. Vollmer, G. Zwadlo, C. Sorg, H. Greve, E. Grundmann
Zur Differenzierung von Makrophagen und glatten Muskelzellen mit monoklonalen Antikörpern in der arteriosklerotischen Plaque der menschlichen Aorta.
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Roessner, A., A. Herrera, H.J. Hoening, E. Vollmer, G. Zwadlo, H.H. Hagemeyer, R. Schueremann, C. Sorg, E. Grundmann: Identification of macrophages and smooth muscle cells with monoclonal antibodies in the human atherosclerotic plaque.
Virchows Arch **A 412**: 169-174 (1987)

Vollmer, E., A. Roessner, K.H. Lipecki, G. Zwadlo, H.H. Hagemeyer, E. Grundmann
Biological characterization of human bone tumors, VI. The aneurysmal bone cyst: an enzyme histochemical, electron microscopical, and immunohistological study.
Virchows Arch **B 53**: 58-65.9-11-3

For in vitro research only. Caution: this product contains sodium azide, a poisonous and hazardous substance.