

HISTOPRIME[®]

CatNo E046

α -Actin, smooth muscle

Lot: See Label

Storage: +2 to +8 °C

Exp. Date: See Label

Monoclonal Antibody against smooth muscle alpha-Actin

Specificity

Actin and myosin represent the two major cytoskeletal proteins responsible for cell motility. In addition to muscle contraction, these proteins are also involved in many other movement processes of single cells and organs, e.g. locomotion, secretion, phagocytosis, cell division, etc. Fibrous actin molecules form thin filaments in the contractile system of cells. Six electrophoretic characterized isoforms of actin can be distinguished in mammals. Four of these isoforms are found in muscle cells. Smooth and transversely striated muscle have different isoforms of alpha-actin. Detection of sarcomeric or smooth muscle actin can also be informative in the differentiation of muscle cells and in the differentiation or dedifferentiation of tumors.

Contents

Reagents sufficient for about 50-100 tissue sections
1 dropper bottle **HISTOPRIME[®] α -Actin, smooth muscle** (Bottle, 5 ml)

Application

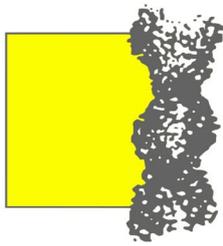
The monoclonal antibody E046 (1A4) recognizes smooth muscle alpha-actin. It does not react with striated muscle, for the detection of which we refer to our LINARIS CatNo E045. Antibody E046 can be used to characterize smooth muscle organs and tumors. Also, a differentiation of fibroblast actin in tissue cultures is possible with this antibody.

Fusion Partners

Spleen cells from immunized mice were fused with mouse myeloma cells. N-terminal decapeptide of smooth muscle alpha-actin was used as immunogen. Anti-actin producing hybridoma cells were further used for ascites recovery.

E046-230109-1/2





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Characterization

Antigen	Smooth muscle alpha-actin (1-10) synthetic
Specificity	Smooth muscle and smooth muscle tumors in human tissue.
Clone	1A4
Isotype	Mouse IgG2a
Pretreatment	Pretreatment with proteolytic enzymes not required.
Incubation Period	1 hour by room temperature
Control Tissue	Smooth muscles
Application	Ready-to-use in PBS, BSA, NaN ₃ (0.09%) pH 7.4(*) suitable on cryostat sections and on formalin-fixed, paraffin-embedded tissue sections.
Recommended Secondary Reagents	Alkaline Phosphatase Vectastain [®] ABC Mouse IgG (Vector CatNo AK-5002) and Substrate-Kit e.g. Vector [®] Red (Vector CatNo SK-5100). Peroxidase Vectastain [®] ABC-Elite Mouse IgG (Vector CatNo PK-6102) and Peroxidase Substrate-Kit e.g. DAB (LINARIS CatNo E108) or HistoGreen (LINARIS CatNo E109).

References

1. Schurch, W. et al. Amer. J. Pathol. 128, 91 (1987)
2. Babai, F. et al. Virchow Arch. B. 55, 263 (1988)
3. Skalli, O. et al. Amer. J. Pathol. 130, 515 (1988)

Differential identification is aided by the results from a panel of antibodies. Interpretation must be made within the context of the patient's clinical history and other diagnostics tests by a qualified pathologist.

(*)Note **E046 contains Sodium Azide; take adequate precautions!**

E046-230109-2/2

For Research use only. Not for use in diagnostic procedure

