

HISTOPRIME[®]

CatNo E045

α -Actin, sarcomeric

Lot: See Label
Storage: +2 to +8 °C
Exp. Date: See Label

Monoclonal Antibody against sarcomeric α -Actin

Specificity

Actin and myosin represent the two major cytoskeletal proteins responsible for cell motility. Besides 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 are found in muscle cells. Smooth and striated muscle have different isoforms of alpha-actin. Detection of sarcomeric or smooth muscle actin can also be informative in cell differentiation of tumors.

Contents

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

Application

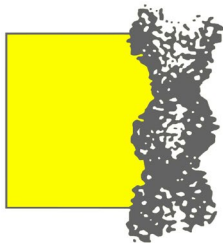
The monoclonal antibody E045 (5C5) recognizes sarcomeric alpha-actin (alpha-sr-1) of striated skeletal and cardiac muscles. The antibody shows high reactivity with human actin as well as with actin from sheep, cattle, rabbit, rat and guinea pig. However, it does not react with smooth muscle, for the detection of which we refer to our LINARIS CatNo. E046. Antibody E045 can be used to characterize rhabdomyosarcomas.

Fusion Partners

Spleen cells from immunized mice were fused with mouse myeloma cells. Purified rabbit sarcomeric actin was used as immunogen. Anti-actin producing hybridoma cells were further used for ascites recovery.

E045-230109-1/2





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Characterization

Antigen	Sarcomeric alpha-actin from rabbit muscle.
Specificity	Skeletal and cardiac muscles
Cross-reactivity	E045 recognizes actin from fish, frog, rabbit, guinea pig, rat, cattle, sheep, snake, etc. in addition to sarcomeric human actin.
Abnormal Tissues	Rhabdomyosarcoma
Clone	5C5
Isotype	Mouse IgM
Pretreatment	Pretreatment with proteolytic enzymes not required.
Incubation Period	1 hour by room temperature
Control Tissue	Skeletal and cardiac 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 IgM (Vector CatNo AK-5010) and Substrate-Kit e.g. Vector [®] Red (Vector CatNo SK-5100). Peroxidase Vectastain [®] ABC-Elite Mouse IgM (Vector CatNo PK-4010) 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 (1987)
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 **E045 contains Sodium Azide; take adequate precautions!**

E045-230109-2/2

For Research use only. Not for use in diagnostic procedure

