

# Novocastra™ Lyophilized Mouse Monoclonal Antibody Muscle Specific Actin

## Product Code: NCL-MSA

<b>Intended Use</b>	<b>For In Vitro Diagnostic Use:</b> This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.
<b>Specificity</b>	Human muscle specific alpha- and gamma-actin isomers. Reactive with alpha-actin from skeletal, cardiac and smooth muscle sources. Does not react with non-muscle actin, beta or non-smooth muscle gamma-actin isomers. Crossreacts with porcine, bovine, monkey, rabbit, hamster and rat muscle actin.
<b>Clone</b>	HHF35
<b>Ig Class</b>	IgG1, kappa
<b>Antigen Used for Immunizations</b>	Sodium dodecylsulphate extracted protein fraction of human myocardium.
<b>Hybridoma Partner</b>	Mouse myeloma (p3-NS1-Ag4-1).
<b>Preparation</b>	Lyophilized tissue culture supernatant containing 15 mM sodium azide. Reconstitute with the volume of sterile distilled water indicated on the vial label.
<b>Effective on Frozen Tissue</b>	Yes. Acetone fixation recommended.
<b>Effective on Paraffin Wax Embedded Tissue</b>	Yes
<b>Recommendations on Use</b>	Immunohistochemistry: Typical working dilution 1:100–1:200. 60 minutes primary antibody incubation at 25 °C. Standard ABC technique. Western Blotting: Typical working dilution 1:1000.
<b>Positive Controls</b>	Immunohistochemistry: Skeletal muscle. Western Blotting: Skeletal muscle.
<b>Staining Pattern</b>	Cytoplasmic.
<b>Storage and Stability</b>	Store unopened lyophilized antibody at 4 °C. Under these conditions, there is no significant loss in product performance up to the expiry date indicated on the vial label. The reconstituted antibody is stable for at least two months when stored at 4 °C. For long term storage, it is recommended that aliquots of the antibody are frozen at -20 °C (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Prepare working dilutions on the day of use.
<b>General Overview</b>	Actins are protein constituents of the microfilaments, the ubiquitous cytoskeletal elements present in most cells. Actins can be biochemically and immunologically divided into three main subsets; alpha-actins are present in muscle tissues, beta- and gamma-actins are present in non-muscle cells and a minor subset of gamma-actins is probably present in muscle cells. NCL-MSA is specific for alpha- and gamma-actins of smooth muscle (42 kD) and reacts with striated muscle fibers of the myocardium, skeletal muscle, muscular layer of the arteries, smooth muscle layers of the entire gastrointestinal tract, smooth muscle tissue of the myometrium, prostatic stroma and bladder wall.
<b>General References</b>	Miettinen M. American Journal of Pathology. 130 (1): 205–215 (1988). Schmidt R A, Cone R, Haas J E, et al. American Journal of Pathology. 131 (1): 19–28 (1988). Tsukada T, McNutt M A, Ross R, et al. American Journal of Pathology. 127 (2): 389–402 (1987). Tsukada T, Tippens D, Gordon D, et al. American Journal of Pathology. 126 (1): 51–60 (1987).

