

Novocastra™ Lyophilized Mouse Monoclonal Antibody Muscle Specific Actin

Product Code: NCL-MSA

Intended Use	FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.
Specificity	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.
Clone	HHF35
Ig Class	IgG1, kappa
Antigen Used for Immunizations	Sodium dodecylsulfate extracted protein fraction of human myocardium.
Hybridoma Partner	Mouse myeloma (p3-NS1-Ag4-1).
Preparation	Lyophilized tissue culture supernatant diluted in PBS with 1% BSA containing sodium azide. Reconstitute with the volume of sterile distilled water indicated on the vial label.
Effective on Frozen Tissue	Yes. Acetone fixation recommended
Effective on Paraffin Wax Embedded Tissue	Yes.
Recommendations on Use	Immunohistochemistry on paraffin sections. Enzyme Induced Epitope Retrieval (EIER): Please follow the instructions for use in Novocastra Enzyme Proteinase K (IHC). Suggested dilution: 1:800 for 30 minutes at 25 °C. This is provided as a guide and users should determine their own optimal working dilutions. Visualization: Please follow the instructions for use in the Novolink™ Polymer Detection Systems. For further product information or support, contact your local distributor or regional office of Leica Biosystems, or alternatively, visit the Leica Biosystems Web site, www.LeicaBiosystems.com <u>The performance of this antibody should be validated when utilized with other manual staining systems or automated platforms.</u>
Positive Controls	Immunohistochemistry: Bowel. Western Blotting: Skeletal muscle.
Staining Pattern	Cytoplasmic.
Storage and Stability	Store unopened lyophilized antibody at 2-8 °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 2-8 °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 I O S Y S T E M S

Warnings and Precautions This reagent has been prepared from the supernatant of cell culture. As it is a biological product, reasonable care should be taken when handling it. This reagent contains sodium azide. A Material Safety Data Sheet is available upon request or available from www.leica-microsystems.com

General Overview 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.

General References 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).