



**Mouse Anti-Human Actin Alpha,  
(Sarkomeric) monoclonal**

**CatNo** **K045**

BatchNo: See Label  
Expiration Date: See Label  
Storage: 2-8°C for 1 month  
-20°C for longer

<b>Background:</b>	Actins are highly conserved proteins ubiquitously expressed in all eukaryotic cells. They comprise, along with microtubules, a major component of the cytoskeleton. Actin has been found to be expressed in at least six isomeric forms. It is expressed in heart and skeletal striated muscle tissue, and in certain smooth muscle tissues, regulating contractile potentials for these cells. It is also expressed in the cytoplasm of non-muscle cells, functioning to control cell structure and motility. Polymerization of globular actin (G-actin) leads to a structural filament (F-actin), whose formation requires the Arp2/3 complex. It has been reported that actin is hyperphosphorylated in primary breast tumors. It has also been shown that actin dysfunction leads to certain types of heart failure.
<b>Clone Number:</b>	5C5
<b>Volume/Quantity:</b>	0.1 ml
<b>Product Form:</b>	Ascites - liquid
<b>Preservatives Stabilisers:</b>	0.09 Sodium Azide (NaN <sub>3</sub> )
<b>Immunogen:</b>	BALB/C mice were injected with purified rabbit striated muscle actin
<b>Isotype:</b>	IgM (Mouse)
<b>Specificity:</b>	Monoclonal anti-ALPHA-sarcomeric actin has been used as a marker for rhabdomyosarcoma. This reacts with a-skeletal and a-cardiac muscle actins. It does not react with smooth muscle tissue.

<b>Applications:</b>	<b>Suggested Working Dilution</b>	
FlowCytometry	Not tested	
Immunohistology-frozen	Yes	
Immunohistology-paraffin	Yes	1/50 – 1/100
Immunohistology-resin	Not tested	
ELISA	Not tested	
Immunoprecipitation	Not tested	
Western Blotting	Not tested	
Radioimmunoassay	Not tested	

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

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**Immunohistology**

<b>Pre-treatment:</b>	This product does not require protein digestion pre-treatment of paraffin sections
<b>Positive Control Tissue:</b>	Skeletal and cardiac muscles
<b>Recommended Secondary Reagents:</b>	F(ab') <sub>2</sub> rabbit anti-mouse IgG HRP conjugate – (LINARIS CatNo LST0013B) Vectastain <sup>®</sup> ABC Mouse IgG (Vector CatNo AK-5002) and Substrate-Kit e.g. Vector <sup>®</sup> Red (Vector CatNo SK-5100). Vectastain <sup>®</sup> ABC-Elite Mouse IgG (Vector CatNo PK-6102) and Peroxidase Substrate-Kit e.g. DAB (LINARIS CatNo E108) or HistoGreen (LINARIS CatNo E109).
<b>Recommended Negative Controls:</b>	Mouse IgG2a Negative Control (LINARIS CatNo ITC0929)

<b>Storage Conditions:</b>	Store at 2-8°C for one month or at -20°C for longer! Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
<b>Shelf Life:</b>	12 months from date of despatch.
<b>Health and Safety Information:</b>	(A full Health and Safety assessment is available upon request) This product contains sodium azide: a POISONOUS and HAZARDOUS SUBSTANCE which should be handled by trained staff only.

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**For Research purposes only. Not for therapeutic or diagnostic use.**

