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Product datasheet for AM33291PU-S

Actin (ACTA1) (Muscle Specific) Mouse Monoclonal Antibody [Clone ID: SPM160]

Product data:

Product Type:	Primary Antibodies
Clone Name:	SPM160
Applications:	FC, IF, IHC, IP, WB
Recommended Dilution:	**Western Blotting:** 0.5-1 µg/ml. **Flow Cytometry:** 0.5-1 µg/10^6 cells. **Immunoprecipitation:** 0.5-1 µg/500 µg protein lysate. **Immunofluorescence**: 0.5-1 µg/ml. **Immunohistochemistry on Frozen and Formalin-Fixed Sections:** 0.5-1 µg/ml for 30 minutes at RT. No special pretreatment is required for the immunohistochemical staining of formalin-fixed, paraffin-embedded tissues. ***Recommended Positive Control:*** Muscle or sarcoma.
Reactivity:	Human, Rabbit, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	SDS extract of Human myocardium.
Specificity:	This antibody recognizes Actin of skeletal, cardiac, and smooth muscle cells. It is not reactive with other mesenchymal cells except for myoepithelium. Actin can be resolved on the basis of its isoelectric points into three distinctive components: alpha, beta, and gamma in order of increasing isoelectric point. Anti-muscle specific actin recognizes alpha and gamma isotype of all muscle groups. Non-muscle cells such as vascular endothelial cells and connective tissues are non-reactive. Also, neoplastic cells of non-muscle-derived tissue such as carcinomas, melanomas, and lymphomas are negative. It stains tumors of smooth muscle (leiomyomas and leiomyosarcomas) as well as skeletal muscle (rhabdomyomas and rhabdomyosarcomas). ***Cellular Localization:*** Cytoplasmic.

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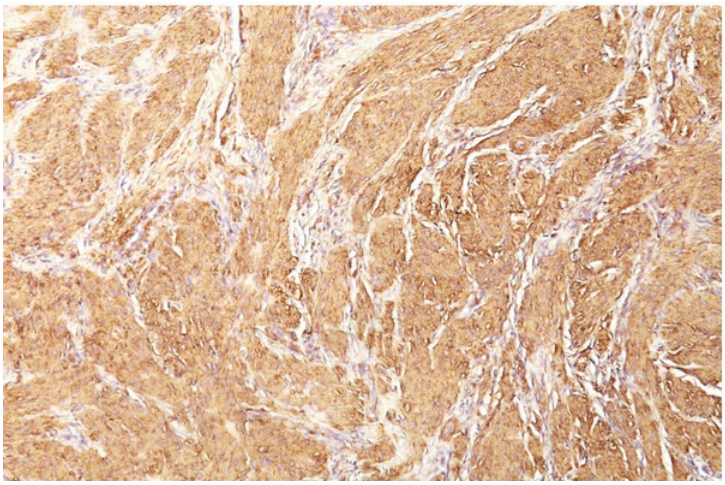
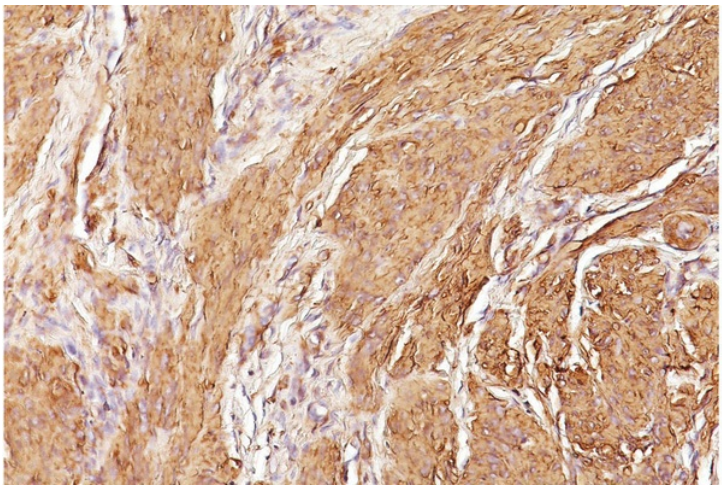
Formulation:	10mM PBS State: Purified State: Liquid purified IgG fraction from Bioreactor Concentrate Stabilizer: 0.05% BSA Preservative: 0.05% Sodium Azide
Concentration:	lot specific
Purification:	Protein A/G Chromatography
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C. **DO NOT FREEZE!**
Stability:	Shelf life: one year from despatch.
Gene Name:	actin, alpha 1, skeletal muscle
Database Link:	Entrez Gene 58 Human P68133
Background:	**Function:** Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells. **Involvement in disease:** Defects in ACTA1 are the cause of nemaline myopathy type 3 (NEM3) [MIM:161800]. A form of nemaline myopathy. Nemaline myopathies are muscular disorders characterized by muscle weakness of varying severity and onset, and abnormal thread-or rod-like structures in muscle fibers on histologic examination. The phenotype at histological level is variable. Some patients present areas devoid of oxidative activity containg (cores) within myofibers. Core lesions are unstructured and poorly circumscribed. Defects in ACTA1 are a cause of myopathy congenital with excess of thin myofilaments (MPCETM) [MIM:161800]. A congenital muscular disorder characterized at histological level by areas of sarcoplasm devoid of normal myofibrils and mitochondria, and replaced with dense masses of thin filaments. Central cores, rods, ragged red fibers, and necrosis are absent. Defects in ACTA1 are a cause of congenital myopathy with fiber-type disproportion (CFTD) [MIM:255310]; also known as congenital fiber-type disproportion myopathy (CFTDM). CFTD is a genetically heterogeneous disorder in which there is relative hypotrophy of type 1 muscle fibers compared to type 2 fibers on skeletal muscle biopsy. However, these findings are not specific and can be found in many different myopathic and neuropathic conditions. **Sequence similarities:** Belongs to the actin family.
Synonyms:	ACTA, ACTA1, ACTA2, ACTC1, Actin, ACTSA, Alpha-2 actin, alpha skeletal muscle, Alpha-actin-1, Cardiac muscle alpha actin-1, Skeletal muscle alpha actin-1

Product images:



Formalin-Paraffin leiomyosarcoma (10X) stained with muscle specific Actin Antibody (Clone SPM160).



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