

Monoclonal Antibody to SERCA2 ATPase - Ascites

Alternate names:	ATP2B, Calcium pump 2 ATPase, Calcium-transporting ATPase sarcoplasmic reticulum type, Endoplasmic reticulum class 1/2 Ca(2+) ATPase, SR Ca(2+)-ATPase 2, Sarcoplasmic/endoplasmic reticulum calcium ATPase 2, slow twitch skeletal muscle isoform
Catalog No.:	SM5104
Quantity:	0.1 ml
Concentration:	1 mg/ml
Background:	ATP dependent calcium pumps are responsible, in part, for the maintenance of low cytoplasmic free calcium concentrations. The ATP pumps that reside in intracellular organelles are encoded by a family of structurally related enzymes, termed the sarcoplasmic or endoplasmic reticulum calcium (SERCA) ATPases. The SERCA1 gene is exclusively expressed in type II (fast) skeletal muscle. The SERCA2 gene is subject to tissue dependent processing which is responsible for the generation of SERCA2a muscle-specific form expressed in type I (slow) skeletal, cardiac and smooth muscle and the SERCA2b isoform expressed in all cell types. The SERCA3 gene is not as well characterized and is found in non-muscle cells.
Uniprot ID:	P16615
NCBI:	NP_001672.1
GeneID:	488
Host / Isotype:	Mouse / IgG1
Clone:	IID8
Immunogen:	Purified canine cardiac sarcoplasmic reticulum.
Format:	State: Liquid purified antibody Purification: affinity chromatography purified Buffer System: PBS Preservatives: 0.05% Sodium Azide
Applications:	Immunocytochemistry: Assay Dependent. Immunohistochemistry on Frozen Sections: 1:500. Immunohistochemistry on paraffin embedded sections: 1 µg/ml Western Blot: 1:500-1:5000, detects an ~110 kDa protein representing SERCA2 ATPase from canine skeletal muscle triad preparations. Immunofluorescence 1:100 - 1:200: Staining of SERCA2 ATPase in rabbit skeletal muscle with SM5104 results in strong labelling of the entire type I (slow) myofiber consistent with sarcoplasmic reticulum localization. Flow Cytometry: 1 µg per 10e6 cells

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody detects Sarcoplasmic or Endoplasmic Reticulum Calcium 2 (SERCA2) ATPase and does not discriminate between the two isoforms.
This antibody does not detect Frog SERCA2 ATPase. (Ref. 18)
Species: Human, Bovine, Canine, Porcine, Rat and Rabbit (tested), Mouse, Hamster, Guinea Pig, Amphibian, Birds (published)
Other species not tested.

Storage: Store the antibody (in aliquots) at -20°C.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

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