# ProductInformation

**MONOCLONAL ANTI-SERCA1 ATPASE, C-TERMINUS**
**Clone VE121G9**
Mouse Ascites Fluid

Product Number **S 1189**

## Product Description

Monoclonal Anti-SERCA1 ATPase, C-Terminus is derived from the hybridoma produced by the fusion of mouse myeloma cells and splenocytes from a BALB/c mouse immunized with purified rabbit skeletal muscle sarcoplasmic reticulum.[1]

Monoclonal Anti-SERCA1 ATPase C-Terminus recognizes an epitope located between amino acid residue 506 and the C-terminus of rabbit skeletal muscle of SERCA1 ATPase (110 kDa) in type II (fast) skeletal muscle in human, canine and rabbit by immunoblotting and immunofluorescence. This region is exposed in native sarcoplasmic reticulum. This product has also been shown to inhibit the crystallization of $Ca^{2+}$ ATPase induced by vanadate.

ATP dependent calcium pumps are responsible in part for the maintenance of low cytoplasmic free $Ca^{2+}$ concentrations.[2] The ATP pumps that reside in intracellular organelles are encoded by a family of genes that produce structurally related enzymes termed the sarcoplasmic or endoplasmic reticulum $Ca^{2+}$ (SERCA) ATPases.[3,4] The SERCA1 gene is exclusively expressed in type II (fast) skeletal muscle. The SERCA2 gene is subject to tissue dependent processing resulting in the generation of the SERCA2a muscle-specific isoform expressed in type I (slow) skeletal, cardiac and smooth muscle and the SERCA2b isoform expressed in all other cell types. SERCA3 is co-expressed with SERCA2b in platelets, mast cells, lymphoid cells and epithelial cells.

## Reagent

Monoclonal Anti-SERCA1 ATPase C-Terminus is supplied as diluted ascites fluid with 0.05 % sodium azide as preservative.

## Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling.

## Storage/Stability

Store at –20 °C. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Storage in “frost-free” freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

## Product Profile

The recommended working dilution is 1:2500 for immunoblotting.

The recommended working dilution is 1:500 for immunofluorescence. This antibody strongly labels the entire type II (fast) myofiber.

Note: In order to obtain best results and assay sensitivities of different techniques and preparations, we recommend determining optimal working dilutions by titration test.

## References


1. Jorgenson, A.O. et al., Cell Mot. and Cytoskel., **9**, 164-174 (1988).
2. MacLennan, D.H., Eur. J. Biochem., **267**, 5291-5297 (2000).
3. East, J.M., Mol. Membr. Biol., **17**, 189-200 (2000).
4. Shull, G.E., Eur. J. Biochem., **267**, 5284-5290 (2000).


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