

Anti-SERCA1 ATPase/ATP2A1 Antibody Picoband® Biotin Conjugated

Catalog Number: PA1719-Biotin

About ATP2A1

SERCA1 (SARCOPLASMIC RETICULUM Ca (2+)-ATPase 1), also called ATP2A1, is an enzyme that in humans is encoded by the ATP2A1 gene. This gene encodes one of the SERCA Ca (2+)-ATPases, which are intracellular pumps located in the sarcoplasmic or endoplasmic reticula of muscle cells. The SERCA1 gene is mapped on 16p11.2. This enzyme catalyzes the hydrolysis of ATP coupled with the translocation of calcium from the cytosol to the sarcoplasmic reticulum lumen, and is involved in muscular excitation and contraction. Zhang et al. (1995) determined that the human ATP2A1 gene is 26 kb long and contains 23 exons, 1 of which can be alternatively spliced. Overexpression of S1T, but not full-length SERCA1, induced ER stress in HeLa cells and amplified ER stress through the PERK (EIF2AK3)-EIF2A -ATF4 -CHOP (DDIT3) pathway. Mutations in this gene cause some autosomal recessive forms of Brody disease, characterized by increasing impairment of muscular relaxation during exercise.

Overview

Product Name	Anti-SERCA1 ATPase/ATP2A1 Antibody Picoband® Biotin Conjugated
Reactive Species	Human, Mouse, Rat
Clonality	Polyclonal
Formulation	Each vial contains 50% glycerol, 0.9% NaCl, 0.2% Na ₂ HPO ₄ , 0.02% NaN ₃ .
Storage Instructions	At -20°C for one year from date of receipt. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	O14983

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human SERCA1 ATPase, identical to the related rat and mouse sequences.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Liquid
Concentration	0.5 mg/mL
Purification	Immunogen affinity purified.
Conjugate	Biotin
Suggested Dilutions	The intended application should be selected according to the customer's experimental requirements.

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