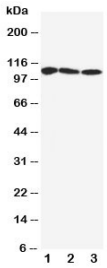
SERCA1 ATPase Antibody (R30809)

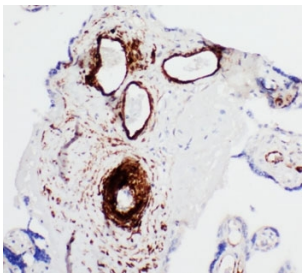
Catalog No.	Formulation	Size
R30809	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

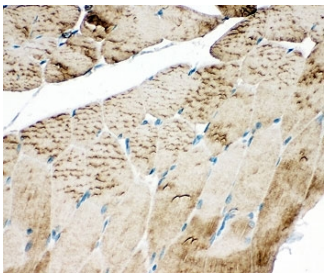
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	O14983
Applications	Western blot: 0.5-1ug/ml IHC (FFPE): 0.5-1ug/ml
Limitations	This SERCA1 ATPase antibody is available for research use only.



Western blot testing of SERCA1 ATPase antibody and Lane 1: rat skeletal muscle; 2: human PANC; 3: (h) U87 cell lysate. Observed size: 99-110KD



IHC-P: SERCA1 ATPase antibody testing of human placenta tissue



IHC-P: SERCA1 ATPase antibody testing of rat skeletal muscle tissue

Description

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. 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.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the SERCA1 ATPase antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the middle region of human SERCA1 ATPase (EQREACRRACCFARVE) was used as the immunogen for this SERCA1 ATPase antibody (100% homologous in human, mouse and rat).

Storage

After reconstitution, the SERCA1 ATPase antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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