

SERCA1 ATPase polyclonal antibody

Catalog: BS91222

Host: Rabbit

Reactivity: Human

Background:

This gene encodes one of the SERCA Ca²⁺-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. Mutations in this gene cause some autosomal recessive forms of Brody disease, characterized by increasing impairment of muscular relaxation during exercise. Alternative splicing results in three transcript variants encoding different isoforms. There are 3 major domains on the cytoplasmic face of SERCA: the phosphorylation and nucleotide-binding domains, which form the catalytic site, and the actuator domain, which is involved in the transmission of major conformational changes. It seems that, in addition to the calcium-transporting properties, SERCA1 generates heat in some adipocytes [1][2] and can improve cold tolerance in some wood frogs.

Product:

Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

Molecular Weight:

110 kDa

Swiss-Prot:

O14983 Human

Purification&Purity:

Protein A purified.

Applications:

WB:1:500-1:1,000

IP:1:10-1:50

IHC:1:50-1:200

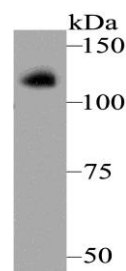
Storage&Stability:

Store at +4 °C after thawing. Aliquot store at -20 °C. Avoid repeated freeze / thaw cycles.

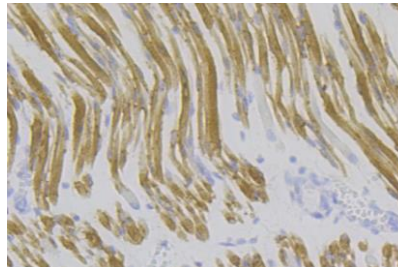
Specificity:

SERCA1 ATPase polyclonal antibody detects endogenous levels of SERCA1 ATPase protein.

DATA:



Western blot analysis of SERCA1 ATPase on human fetal skeletal muscle tissue lysate. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody was used at a 1:500 dilution in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:5,000 dilution was used for 1 hour at room temperature.



Immunohistochemical analysis of paraffin-embedded human fetal skeletal muscle tissue using anti-SERCA1 ATPase antibody. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 20 mins. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH₂O and PBS, and then probed with ET7109-43 at 1/200 dilution, for 30 minutes at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. Counter stained with hematoxylin and mounted with DPX.

Note:

For research use only, not for use in diagnostic procedure.

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