

SERCA1 Polyclonal Antibody

Catalog No: YT4253

Reactivity: Human; Mouse; Rat; Salamander; Pig

Applications: WB;IHC;IF;ELISA

Target: SERCA1

Fields: >>Calcium signaling pathway;>>cGMP-PKG signaling pathway;>>cAMP

signaling pathway;>>Cardiac muscle contraction;>>Adrenergic signaling in cardiomyocytes;>>Thyroid hormone signaling pathway;>>Pancreatic secretion;>>Alzheimer disease;>>Spinocerebellar ataxia;>>Pathways of

neurodegeneration - multiple diseases;>>Hypertrophic

cardiomyopathy;>>Arrhythmogenic right ventricular cardiomyopathy;>>Dilated

cardiomyopathy;>>Diabetic cardiomyopathy

Gene Name: ATP2A1

Protein Name: Sarcoplasmic/endoplasmic reticulum calcium ATPase 1

O14983

Q8R429

Human Gene Id: 487

Human Swiss Prot

No:

Mouse Gene Id: 11937

Mouse Swiss Prot

No:

Rat Gene ld: 116601

Rat Swiss Prot No: Q64578

Immunogen: The antiserum was produced against synthesized peptide derived from human

ATP2A1. AA range:548-597

Specificity: SERCA1 Polyclonal Antibody detects endogenous levels of SERCA1 protein.

Formulation: Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

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Source : Polyclonal, Rabbit, IgG

Dilution : WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:10000.. IF 1:50-200

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 100kD

Cell Pathway: Calcium; Alzheimer's disease;

Background : 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. 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. [provided by RefSeq, Oct 2013],

Function: catalytic activity:ATP + H(2)O + Ca(2+)(Cis) = ADP + phosphate +

Ca(2+)(Trans).,developmental stage:Isoform SERCA1A accounts for more than

99% of SERCA1 isoforms expressed in adult, while isoform SERCA1B

predominates in neo-natal fibers., disease: Defects in ATP2A1 are the cause of Brody disease (BD) [MIM:601003]. BD is an autosomal recessive myopathy characterized by increasing impairment of relaxation of fast twist skeletal muscle during exercise., enzyme regulation: Reversibly inhibited by phospholamban (PLN) at low calcium concentrations. Dephosphorylated PLN decreases the apparent

affinity of the ATPase for calcium. This inhibition is regulated by the

phosphorylation of PLN.,function:This magnesium-dependent enzyme catalyzes the hydrolysis of ATP coupled with the translocation of calcium from the cytosol to the sarcoplasmic reticulum lumen. Contributes to calcium sequestration involved

Subcellular Location:

Endoplasmic reticulum membrane ; Multi-pass membrane protein . Sarcoplasmic reticulum membrane ; Multi-pass membrane protein .

Expression: Skeletal muscle, fast twitch muscle (type II) fibers.

Tag: orthogonal

Sort : 16240

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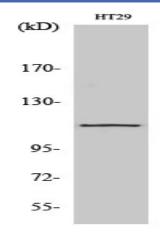


No4: 1

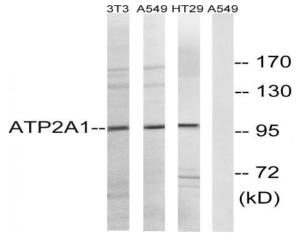
Host: Rabbit

Modifications: Unmodified

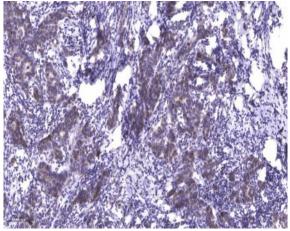
Products Images



Western Blot analysis of various cells using SERCA1 Polyclonal Antibody diluted at 1:2000



Western blot analysis of lysates from HT-29, A549, and NIH/3T3 cells, using ATP2A1 Antibody. The lane on the right is blocked with the synthesized peptide.



Immunohistochemical analysis of paraffin-embedded human Breast cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).