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Anti-ATP2A3 Antibody

Catalog # ABO12738

Product Information

Application	WB, IHC-P
Primary Accession	Q93084
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Sarcoplasmic/endoplasmic reticulum calcium ATPase 3(ATP2A3) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	489
Other Names	Sarcoplasmic/endoplasmic reticulum calcium ATPase 3, SERCA3, SR Ca(2+)-ATPase 3, 3.6.3.8, Calcium pump 3, ATP2A3
Calculated MW	109256
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Mouse, Rat, Human, By Heat Western blot, 0.1-0.5 □g/ml, Mouse, Rat, Human
Subcellular Localization	Nucleus membrane ; Multi-pass membrane protein . Endoplasmic reticulum membrane ; Multi-pass membrane protein . Sarcoplasmic reticulum membrane ; Multi-pass membrane protein .
Tissue Specificity	Found in most tissues. Most abundant in thymus, trachea, salivary gland, spleen, bone marrow, lymph node, peripheral leukocytes, pancreas and colon. Also detected in fetal tissues. Expressed in cell lineages of hematopoietic, epithelial, or embryonic origin and also expressed in several cancer cell lines. .
Source	Eukaryota
Protein Name	Sarcoplasmic/endoplasmic reticulum calcium ATPase 3
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human ATP2A3(1-30aa MEAAHLLPAADVLRHFSVTAEGGLSPAQVT), different from the

	related mouse sequence by five amino acids, and from the related rat sequence by six amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

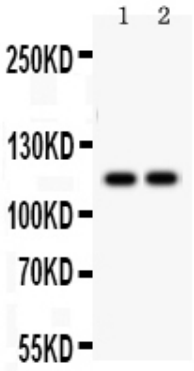
Protein Information

Name	ATP2A3 (HGNC:813)
Function	This magnesium-dependent enzyme catalyzes the hydrolysis of ATP coupled with the transport of calcium. Transports calcium ions from the cytosol into the sarcoplasmic/endoplasmic reticulum lumen. Contributes to calcium sequestration involved in muscular excitation/contraction.
Cellular Location	Nucleus membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane; Multi-pass membrane protein. Sarcoplasmic reticulum membrane; Multi-pass membrane protein
Tissue Location	Found in most tissues. Most abundant in thymus, trachea, salivary gland, spleen, bone marrow, lymph node, peripheral leukocytes, pancreas and colon. Also detected in fetal tissues Expressed in cell lineages of hematopoietic, epithelial, or embryonic origin and also expressed in several cancer cell lines

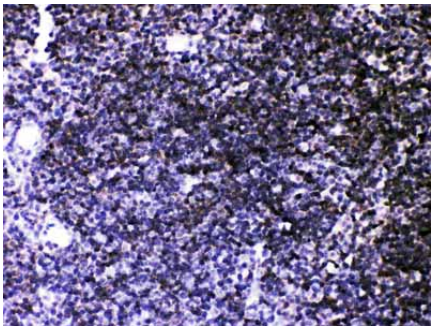
Background

Sarcoplasmic/endoplasmic reticulum calcium ATPase 3, also known as SERCA3, is anenzyme that in humans is encoded by the ATP2A3 gene. It is mapped to 17p13.2. This gene encodes one of the SERCA Ca2+-ATPases, which are intracellular pumps located in the sarcoplasmic or endoplasmic reticula of cells. ATP2A3 expression was originally described as non-muscular, but was recently observed in cardiomyocyte. What □€™s more, the expression of ATP2A3 was significantly reduced or lost in colon carcinomas compared with normal colonic epithelial 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 calcium sequestration associated with muscular excitation and contraction.

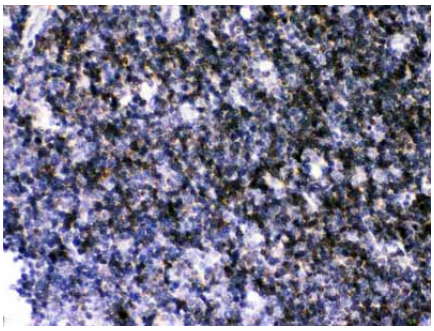
Images



Anti- ATP2A3 antibody, ABO12738, Western blottingAll lanes: Anti ATP2A3 (ABO12738) at 0.5ug/mlLane 1: Rat Skeletal Muscle Tissue Lysate at 50ugLane 2: Mouse Skeletal Muscle Tissue Lysate at 50ugPredicted bind size: 114KDObserved bind size: 114KD



Anti- ATP2A3 antibody, ABO12738, IHC(P)IHC(P): Mouse Thymus Tissue



Anti- ATP2A3 antibody, ABO12738,IHC(P) IHC(P): Rat Thymus Tissue