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KD-Validated Anti-ATP2A2 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1191

Product Information

Application	WB, FC, ICC
Primary Accession	P16615
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	23GB3250
Calculated MW	114757
Gene Name	ATP2A2
Aliases	ATP2A2; ATPase Sarcoplasmic/Endoplasmic Reticulum Ca2+ Transporting 2; SERCA2; Sarcoplasmic/Endoplasmic Reticulum Calcium ATPase 2; Calcium Pump 2; ATP2B; Endoplasmic Reticulum Class 1/2 Ca(2+) ATPase; SR Ca(2+)-ATPase; DAR; Calcium-Transporting ATPase Sarcoplasmic Reticulum Type, Slow Twitch Skeletal Muscle Isoform; ATPase, Ca++ Transporting, Cardiac Muscle, Slow Twitch 2; ATPase Ca++ Transporting Cardiac Muscle Slow Twitch 2; ATPase, Ca++ Dependent, Slow-Twitch, Cardiac Muscle-2; Cardiac Ca2+ ATPase; EC 7.2.2.10; EC 3.6.3.8; EC 3.6.3; DD
Immunogen	A synthesized peptide derived from human SERCA2

Additional Information

Gene ID	488
Other Names	Sarcoplasmic/endoplasmic reticulum calcium ATPase 2, SERCA2, SR Ca(2+)-ATPase 2, 7.2.2.10, Calcium pump 2, Calcium-transporting ATPase sarcoplasmic reticulum type, slow twitch skeletal muscle isoform, Endoplasmic reticulum class 1/2 Ca(2+) ATPase, ATP2A2 (HGNC:812), ATP2B

Protein Information

Name	ATP2A2 (HGNC:812)
Synonyms	ATP2B
Function	This magnesium-dependent enzyme catalyzes the hydrolysis of ATP coupled with the translocation of calcium from the cytosol to the sarcoplasmic reticulum lumen (PubMed:12542527, PubMed:16402920). Involved in autophagy in response to starvation. Upon interaction with VMP1 and activation, controls ER-isolation membrane contacts for autophagosome formation (PubMed:28890335). Also modulates ER contacts with lipid droplets, mitochondria and endosomes (PubMed:28890335). In coordination with FLVCR2 mediates heme-stimulated switching from mitochondrial ATP synthesis to thermogenesis (By similarity).

Cellular Location	Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:O55143}; Multi-pass membrane protein. Sarcoplasmic reticulum membrane; Multi-pass membrane protein. Note=Colocalizes with FLVCR2 at the mitochondrial-ER contact junction. {ECO:0000250|UniProtKB:O55143}
Tissue Location	Isoform 1 is widely expressed in smooth muscle and nonmuscle tissues such as in adult skin epidermis, with highest expression in liver, pancreas and lung, and intermediate expression in brain, kidney and placenta. Also expressed at lower levels in heart and skeletal muscle. Isoforms 2 and 3 are highly expressed in the heart and slow twitch skeletal muscle. Expression of isoform 3 is predominantly restricted to cardiomyocytes and in close proximity to the sarcolemma Both isoforms are mildly expressed in lung, kidney, liver, pancreas and placenta. Expression of isoform 3 is amplified during monocytic differentiation and also observed in the fetal heart

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