Best Tools for immunology Research

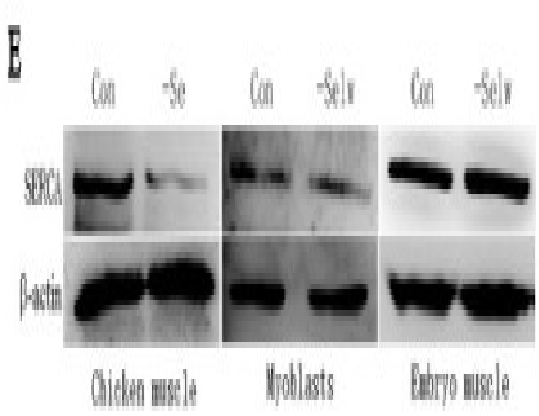
SERCA2 Polyclonal Antibody

Catalog No :	YT5451
Reactivity :	Human;Mouse;Rat;Chicken
Applications :	WB;IHC;IF;ELISA
Target :	SERCA2
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 :	ATP2A2
Protein Name :	Sarcoplasmic/endoplasmic reticulum calcium ATPase 2
Human Gene Id :	488
Human Swiss Prot No :	P16615
Mouse Gene Id :	11938
Mouse Swiss Prot No :	O55143
Rat Gene Id :	29693
Rat Swiss Prot No :	P11507
Immunogen :	The antiserum was produced against synthesized peptide derived from the C-terminal region of human ATP2A2. AA range:841-890
Specificity :	SERCA2 Polyclonal Antibody detects endogenous levels of SERCA2 protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

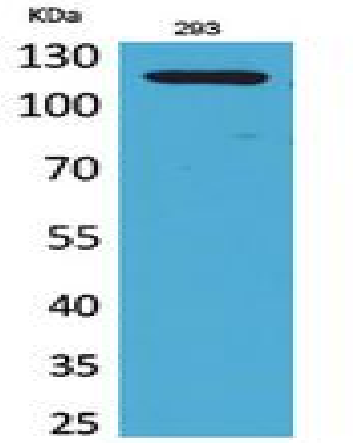
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500 - 1:2000. IHC: 1:100-1:300. ELISA: 1:20000.. IF 1:50-200
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	115kD
Cell Pathway :	Calcium;Cardiac muscle contraction;Alzheimer's disease;Hypertrophic cardiomyopathy (HCM);Arrhythmogenic right ventricular cardiomyopathy (ARVC);Dilated cardiomyopathy;
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 into the sarcoplasmic reticulum lumen, and is involved in regulation of the contraction/relaxation cycle. Mutations in this gene cause Darier-White disease, also known as keratosis follicularis, an autosomal dominant skin disorder characterized by loss of adhesion between epidermal cells and abnormal keratinization. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Oct 2008],
Function :	alternative products:SERCA2 transcripts differ only in their 3'-UTR region and are expressed in a tissue-specific manner,catalytic activity:ATP + H(2)O + Ca(2+)(Cis) = ADP + phosphate + Ca(2+)(Trans).,disease:Defects in ATP2A2 are a cause of acrokeratosis verruciformis (AKV) [MIM:101900]; also known as Hopf disease. AKV is a localized disorder of keratinization, which is inherited as an autosomal dominant trait. Its onset is early in life with multiple flat-topped, flesh-colored papules on the hands and feet, punctate keratoses on the palms and soles, with varying degrees of nail involvement. The histopathology shows a distinctive pattern of epidermal features with hyperkeratosis, hypergranulosis, and acanthosis together with papillomatosis. These changes are frequently associated with circumscribed elevations of the epidermis that are said to resemble church spires. There are no feature
Subcellular Location :	Endoplasmic reticulum membrane ; Multi-pass membrane protein . Sarcoplasmic reticulum membrane ; Multi-pass membrane protein .
Expression :	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.

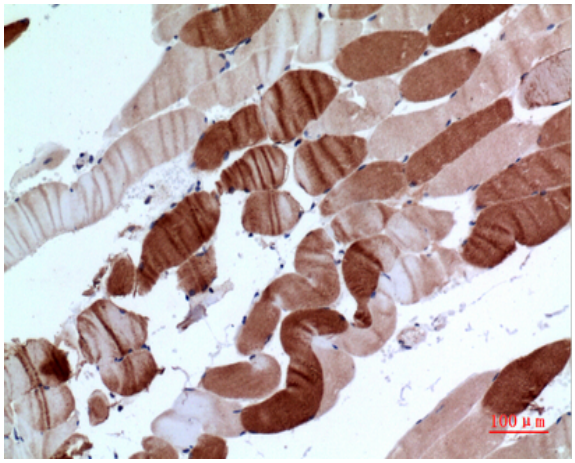
Products Images



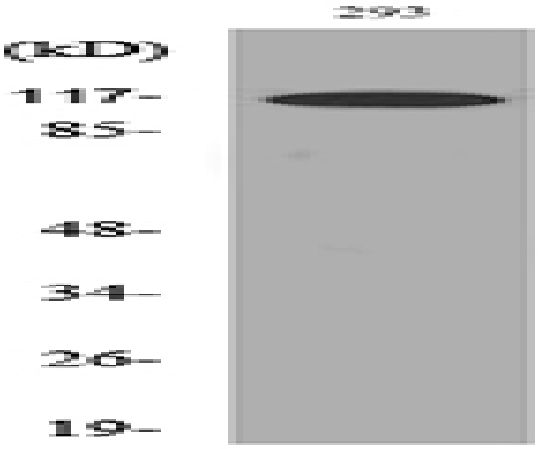
Yao, Haidong, et al. "Selenoprotein W redox-regulated Ca2+ channels correlate with selenium deficiency-induced muscles Ca2+ leak." Oncotarget 7.36 (2016): 57618.



Western Blot analysis of 293 cells using SERCA2 Polyclonal Antibody. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded human-muscle, antibody was diluted at 1:100



Western blot analysis of lysate from 293 cells, using ATP2A2 Antibody.