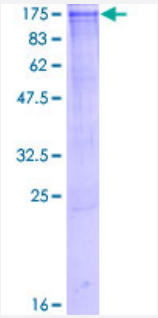
Full-Length

ATP2A2 (Human) Recombinant Protein (P01)

Catalog # H00000488-P01 Size 25 ug, 10 ug

Applications



Specification

Product Description	Human ATP2A2 full-length ORF (NP_001672.1, 1 a.a. - 997 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	MENAHTKTVEEVLGHFGVNESTGLSLEQVKKLKERWGSNELPAEEGKTLLELVIEQFEDLLVRILL LAACISFVLAWFEEGEETITAFVEPFVILLILVANAIVGVWQERNAENAIEALKEYEPEMGKVYRQD RKSVQRIKAKDIVPGDIVEIAVGDKVPADIRLTSIKSTTLRVDQSILTGESVSVIKHTDPVPDPRAVNQ DKKNMLFSGTNIAAGKAMGVVVATGVNTEIGKIRDEMVATEQERTPLQQKLDEFGEQLSKVISLICI AVWIINIGHFNDPVHGGSWIRGAIYYFKIAVALAVAAIPEGLPAVITTCLALGTRRMAKKNAIVRSLPS VETLGCTSVICSDKTGTLTTNQMSVCRMFILDRVEGDTCSLNEFTITGSTYAPIGEVHKDDKPVNC HQYDGLVELATICALCNDSALDYNEAKGVYEKVGEATETALTCLVEKMNVFDTELKGLSKIERANA CNSVIKQLMKKEFTLEFSRDRKSMSVYCTPNKPSRTSMSKMFVKGAPEGVIDRCTHIRVGSTKVP MTSGVKQKIMSVIREWGSGSDTLRCLALATHDNPLRREEMHLEDSANFIKYETNLTFVGCVGMLD PPRIEVASSVKLCRQAGIRVIMITGDNKGTAVAICRRIGIFGQDEDVTSKAFTGREFDELNPSAQRD ACLNARCFARVEPSHKSKIVEFLQSFDEITAMTGDGVNDAPALKKAEIGIAMGSGTAVAKTASEM VLADDNFSTIVAAVEEGRAIYNNMKQFIRYLISSNVGEVVCIFLTAALGFPEALIPVQLLWVNLVTDG LPATALGFNPPDLDIMNKPPRNPKEPLISGWLFFRYLAIGCYVGAATVGAAAWWFIAADGGPRVS FYQLSHFLQCKEDNPDFEGVDCAIFESPYPMTMALSVLVTIEMCNALNSLSENQSLLRMPPWENI WLVGSICLSMSLHFLILYVEPLPLIFQITPLNVTQWLMVLKISLPVILMDETLKFVARNYLEPAILE
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	136.1

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Interspecies Antigen Sequence	Mouse (99); Rat (99)
Preparation Method	*in vitro* wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — ATP2A2

Entrez GeneID	488
GeneBank Accession#	NM_001681.2
Protein Accession#	NP_001672.1
Gene Name	ATP2A2
Gene Alias	ATP2B, DAR, DD, DKFZp686P0211, FLJ20293, FLJ38063, MGC45367, SERCA2
Gene Description	ATPase, Ca++ transporting, cardiac muscle, slow twitch 2
Omim ID	101900 108740 124200
Gene Ontology	Hyperlink

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Gene Summary	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 lum en, and is involved in regulation of the contraction/relaxation cycle. Mutations in this gene cause D arier-White disease, also known as keratosis follicularis, an autosomal dominant skin disorder ch aracterized by loss of adhesion between epidermal cells and abnormal keratinization. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq
Other Designations	ATPase, Ca++ dependent, slow-twitch, cardiac muscle-2|ATPase, Ca++ transporting, slow twitch 2|SR Ca(2+)-ATPase 2|calcium pump 2|calcium-transporting ATPase sarcoplasmic reticulum typ e, slow twitch skeletal muscle isoform|cardiac Ca2+ ATPase|endoplasmic r

Publication Reference

- Methods for Modulating Cyclic Nucleotide-Mediated Signaling in Cardiac Myocytes and Compositions.

  Movsesian M, Zaccolo M.

  United States Patent Application 2016 Mar; US20160083701A1.

  Application: PI, Human, Recombinant protein

- Regulation of SERCA2 activity by PDE3A in human myocardium: Phosphorylation-dependent interaction of PDE3A1 with SERCA2.

  Ahmad F, Shen W, Vandeput F, Szabo-Fresnais N, Krall J, Degerman E, Goetz F, Klussmann E, Movsesian M, Manganiello V.

  The Journal of Biological Chemistry 2015 Mar; 290(11):6763.

  Application: WB, Recombinant protein

Pathway

- Arrhythmogenic right ventricular cardiomyopathy (ARVC)
- Calcium signaling pathway
- Cardiac muscle contraction
- Hypertrophic cardiomyopathy (HCM)

Disease

- Asthma
- Bipolar Disorder

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- Cardiovascular Diseases
- Colon cancer
- Colonic Neoplasms
- Diabetes Mellitus
- Edema
- Genetic Predisposition to Disease
- Hypertension
- Hypertrophy
- Keratosis Follicularis
- Lung Neoplasms

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