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ATP2C1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17155b

Product Information

Application	WB, E
Primary Accession	P98194
Other Accession	NP_001001486.1, NP_001001485.1
Reactivity	Human
Predicted	Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB36281
Calculated MW	100577
Antigen Region	882-909

Additional Information

Gene ID	27032
Other Names	Calcium-transporting ATPase type 2C member 1, ATPase 2C1, ATP-dependent Ca(2+) pump PMR1, ATP2C1, KIAA1347, PMR1L
Target/Specificity	This ATP2C1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 882-909 amino acids from the C-terminal region of human ATP2C1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ATP2C1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ATP2C1 {ECO:0000303|PubMed:10615129, ECO:0000312|HGNC:HGNC:13211}
Function	ATP-driven pump that supplies the Golgi apparatus with Ca(2+) and Mn(2+)

	ions, both essential cofactors for processing and trafficking of newly synthesized proteins in the secretory pathway (PubMed:12707275, PubMed:16192278, PubMed:20439740, PubMed:21187401, PubMed:30923126). Within a catalytic cycle, acquires Ca(2+) or Mn(2+) ions on the cytoplasmic side of the membrane and delivers them to the lumenal side. The transfer of ions across the membrane is coupled to ATP hydrolysis and is associated with a transient phosphorylation that shifts the pump conformation from inward-facing to outward-facing state (PubMed:16192278, PubMed:16332677, PubMed:30923126). Plays a primary role in the maintenance of Ca(2+) homeostasis in the trans-Golgi compartment with a functional impact on Golgi and post-Golgi protein sorting as well as a structural impact on cisternae morphology (PubMed:14632183, PubMed:20439740). Responsible for loading the Golgi stores with Ca(2+) ions in keratinocytes, contributing to keratinocyte differentiation and epidermis integrity (PubMed:10615129, PubMed:14632183, PubMed:20439740). Participates in Ca(2+) and Mn(2+) ions uptake into the Golgi store of hippocampal neurons and regulates protein trafficking required for neural polarity (By similarity). May also play a role in the maintenance of Ca(2+) and Mn(2+) homeostasis and signaling in the cytosol while preventing cytotoxicity (PubMed:21187401).
Cellular Location	Golgi apparatus, trans-Golgi network membrane; Multi-pass membrane protein. Golgi apparatus, Golgi stack membrane; Multi-pass membrane protein. Note=During neuron differentiation, shifts from juxtanuclear Golgi position to multiple Golgi structures distributed over the neural soma with a predominance in the apical dendritic trunk {ECO:0000250|UniProtKB:Q80XR2}
Tissue Location	Found in most tissues except colon, thymus, spleen and leukocytes (PubMed:15831496). Expressed in keratinocytes (at protein level) (PubMed:14632183, PubMed:15831496)

Background

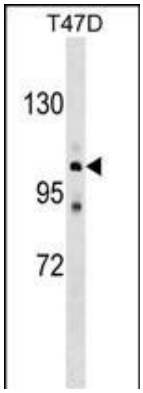
The protein encoded by this gene belongs to the family of P-type cation transport ATPases. This magnesium-dependent enzyme catalyzes the hydrolysis of ATP coupled with the transport of the calcium. Defects in this gene cause Hailey-Hailey disease, an autosomal dominant disorder. Alternatively spliced transcript variants encoding different isoforms have been identified.

References

Baron, S., et al. Biochim. Biophys. Acta 1798(8):1512-1521(2010)
Davila, S., et al. Genes Immun. 11(3):232-238(2010)
Tian, H., et al. J. Dermatol. Sci. 58(1):80-82(2010)
Ding, Y.G., et al. Clin. Exp. Dermatol. 34 (8), E968-E971 (2009) :
Nechama, M., et al. BMC Cell Biol. 10, 70 (2009) :

Images

ATP2C1 Antibody (C-term) (Cat. #AP17155b) western blot analysis in T47D cell line lysates (35ug/lane).This demonstrates the ATP2C1 antibody detected the ATP2C1 protein (arrow).



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