10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CTNS Antibody(C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19410b

Product Information

Application	WB, E
Primary Accession	O60931
Other Accession	NP_004928.2
Reactivity	Human
Predicted	Mouse, Rat, Rabbit, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB40519
Calculated MW	41738
Antigen Region	341-367

Additional Information

Gene ID	1497
Other Names	Cystinosin, CTNS
Target/Specificity	This CTNS antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 341-367 amino acids from the C-terminal region of human CTNS.
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	CTNS Antibody(C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CTNS {ECO:0000303|PubMed:9537412, ECO:0000312|HGNC:HGNC:2518}
Function	Cystine/H(+) symporter that mediates export of cystine, the oxidized dimer of cysteine, from lysosomes (PubMed:11689434, PubMed:15128704, PubMed:18337546, PubMed:22232659, PubMed:29467429,

	PubMed:33208952, PubMed:36113465). Plays an important role in melanin synthesis by catalyzing cystine export from melanosomes, possibly by inhibiting pheomelanin synthesis (PubMed:22649030). In addition to cystine export, also acts as a positive regulator of mTORC1 signaling in kidney proximal tubular cells, via interactions with components of the v-ATPase and Ragulator complexes (PubMed:36113465). Also involved in small GTPase-regulated vesicle trafficking and lysosomal localization of LAMP2A, independently of cystine transporter activity (By similarity).
Cellular Location	[Isoform 1]: Lysosome membrane; Multi-pass membrane protein. Melanosome membrane; Multi-pass membrane protein. Note=AP-3 complex is required for localization to the lysosome.
Tissue Location	Strongly expressed in pancreas, kidney (adult and fetal), skeletal muscle, melanocytes and keratinocytes (PubMed:22649030). Expressed at lower levels in placenta and heart Weakly expressed in lung, liver and brain (adult and fetal) (PubMed:22649030).

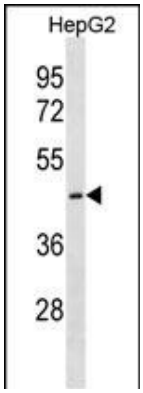
Background

This gene encodes a seven-transmembrane domain protein that functions to transport cystine out of lysosomes. Its activity is driven by the H+ electrochemical gradient of the lysosomal membrane. Mutations in this gene cause cystinosis, a lysosomal storage disorder. Alternative splicing results in multiple transcript variants.

References

Taranta, A., et al. Pediatr. Nephrol. 25(7):1263-1267(2010)
Bellomo, F., et al. Free Radic. Biol. Med. 48(7):865-872(2010)
Kumar, A., et al. J. Biosci. 35(1):21-25(2010)
Aldahmesh, M.A., et al. Ophthalmic Genet. 30(4):185-189(2009)
Macias-Vidal, J., et al. Clin. Genet. 76(5):486-489(2009)

Images



CTNS Antibody (C-term)(Cat. #AP19410b) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the CTNS antibody detected the CTNS protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.