

CTNS Antibody(C-term) Blocking peptide
Synthetic peptide
Catalog # BP19410b**Specification**

CTNS Antibody(C-term) Blocking peptide - Product InformationPrimary Accession [O60931](#)**CTNS Antibody(C-term) Blocking peptide - Additional Information**

Gene ID 1497

Other Names

Cystinosin, CTNS

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CTNS Antibody(C-term) Blocking peptide - 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](http://www.uniprot.org/citations/11689434), PubMed: [15128704](http://www.uniprot.org/citations/15128704), PubMed: [18337546](http://www.uniprot.org/citations/18337546), PubMed: [22232659](http://www.uniprot.org/citations/22232659), PubMed: [29467429](http://www.uniprot.org/citations/29467429), PubMed: [33208952](http://www.uniprot.org/citations/33208952), PubMed: [36113465](http://www.uniprot.org/citations/36113465)). Plays an important role in melanin synthesis by catalyzing cystine export from melanosomes, possibly by inhibiting pheomelanin synthesis (PubMed: [22649030](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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).

CTNS Antibody(C-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

CTNS Antibody(C-term) Blocking peptide - Images**CTNS Antibody(C-term) Blocking peptide - 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.

CTNS Antibody(C-term) Blocking peptide - 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)