

# xCT Rabbit mAb

Catalog # AP76887

## Product Information

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Application	WB, IP
Primary Accession	<a href="#">Q9UPY5</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	55423

## Additional Information

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Gene ID	23657
Other Names	SLC7A11
Dilution	WB~~1/500-1/1000 IP~~N/A
Format	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

## Protein Information

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Name	SLC7A11 ( <a href="#">HGNC:11059</a> )
Function	<p>Heterodimer with SLC3A2, that functions as an antiporter by mediating the exchange of extracellular anionic L-cystine and intracellular L-glutamate across the cellular plasma membrane (PubMed:<a href="#">11133847</a>, PubMed:<a href="#">11417227</a>, PubMed:<a href="#">14722095</a>, PubMed:<a href="#">15151999</a>, PubMed:<a href="#">34880232</a>, PubMed:<a href="#">35245456</a>, PubMed:<a href="#">35352032</a>). Provides L-cystine for the maintenance of the redox balance between extracellular L- cystine and L-cysteine and for the maintenance of the intracellular levels of glutathione that is essential for cells protection from oxidative stress (By similarity). The transport is sodium-independent, electroneutral with a stoichiometry of 1:1, and is drove by the high intracellular concentration of L-glutamate and the intracellular reduction of L-cystine (PubMed:<a href="#">11133847</a>, PubMed:<a href="#">11417227</a>). In addition, mediates the import of L-kynurenine leading to anti-ferroptotic signaling propagation required to maintain L-cystine and glutathione homeostasis (PubMed:<a href="#">35245456</a>). Moreover, mediates N-acetyl-L-cysteine uptake into the placenta leading to subsequently down-regulation of pathways associated with oxidative stress, inflammation and apoptosis (PubMed:<a href="#">34120018</a>). In vitro can also transport L-aspartate (PubMed:<a href="#">11417227</a>). May participate in astrocyte and meningeal cell</p>

proliferation during development and can provide neuroprotection by promoting glutathione synthesis and delivery from non-neuronal cells such as astrocytes and meningeal cells to immature neurons (By similarity). Controls the production of pheomelanin pigment directly (By similarity).

**Cellular Location**

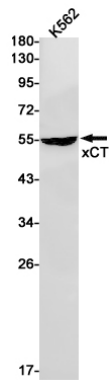
Cell membrane; Multi-pass membrane protein. Cell projection, microvillus membrane; Multi-pass membrane protein. Note=Localized to the microvillous membrane of the placental syncytiotrophoblast.

**Tissue Location**

Expressed in term placenta and primary term cytotrophoblast (PubMed:34120018). Expressed mainly in the brain, but also in pancreas (PubMed:11417227).

## Images

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