

**xCT Rabbit mAb**  
**Catalog # AP76887****Specification**

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**xCT Rabbit mAb - Product Information**

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

**xCT Rabbit mAb - Additional Information****Gene ID** 23657**Other Names**  
SLC7A11**Dilution**  
WB~~1/500-1/1000  
IP~~N/A**Format**  
Liquid**xCT Rabbit mAb - Protein Information****Name** SLC7A11 ([HGNC:11059](#))**Function**

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="http://www.uniprot.org/citations/11133847" target="\_blank">11133847</a>, PubMed:<a href="http://www.uniprot.org/citations/11417227" target="\_blank">11417227</a>, PubMed:<a href="http://www.uniprot.org/citations/14722095" target="\_blank">14722095</a>, PubMed:<a href="http://www.uniprot.org/citations/15151999" target="\_blank">15151999</a>, PubMed:<a href="http://www.uniprot.org/citations/34880232" target="\_blank">34880232</a>, PubMed:<a href="http://www.uniprot.org/citations/35245456" target="\_blank">35245456</a>, PubMed:<a href="http://www.uniprot.org/citations/35352032" target="\_blank">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="http://www.uniprot.org/citations/11133847" target="\_blank">11133847</a>, PubMed:<a href="http://www.uniprot.org/citations/11417227" target="\_blank">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="http://www.uniprot.org/citations/35245456" target="\_blank">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="http://www.uniprot.org/citations/34120018" target="\_blank">34120018</a>). In vitro can also transport L-aspartate (PubMed:<a href="http://www.uniprot.org/citations/11417227" target="\_blank">11417227</a>). May participate in astrocyte and meningeal cell 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).

#### xCT Rabbit mAb - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### xCT Rabbit mAb - Images

