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Anti-SLC7A11 / XCT Antibody (N-Terminus)
Rabbit Anti Human Polyclonal Antibody
Catalog # ALS17576

Specification

Anti-SLC7A11 / XCT Antibody (N-Terminus) - Product Information

Application	**IHC-P**
Primary Accession	Q9UPY5
Predicted	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**55423**
Dilution	**IHC-P~~N/A**

Anti-SLC7A11 / XCT Antibody (N-Terminus) - Additional Information

Gene ID 23657

Alias Symbol	**SLC7A11**

Other Names
SLC7A11, CCBR1, Cystine/glutamate transporter, XCT

Target/Specificity
Human SLC7A11. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

Reconstitution & Storage
Immunoaffinity purified

Precautions
Anti-SLC7A11 / XCT Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-SLC7A11 / XCT Antibody (N-Terminus) - 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:11133847, PubMed:11417227, PubMed:14722095, PubMed:15151999, PubMed:34880232, PubMed:35245456, PubMed:35352032). 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:11133847, PubMed:11417227). In addition, mediates the import of L-kynurenine leading to anti-ferroptotic signaling propagation required to maintain L-cystine and glutathione homeostasis (PubMed:35245456). 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:34120018). In vitro can also transport L-aspartate (PubMed:11417227). 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).

Anti-SLC7A11 / XCT Antibody (N-Terminus) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-SLC7A11 / XCT Antibody (N-Terminus) - Images