

# Anti-SLC7A11 Reference Antibody (Agilvax Patent Anti-Slc7A11)

Recombinant Antibody  
Catalog # APR11038

## Product Information

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<b>Application</b>	FC, Kinetics, Animal Model
<b>Primary Accession</b>	<a href="#">Q9UPY5</a>
<b>Reactivity</b>	Human, Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	IgG1
<b>Calculated MW</b>	55423

## Additional Information

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<b>Target/Specificity</b>	SLC7A11
<b>Endotoxin Conjugation</b>	Unconjugated
<b>Expression system</b>	CHO Cell
<b>Format</b>	Purified monoclonal antibody supplied in PBS, pH6.0, without preservative. This antibody is purified through a protein A column.

## Protein Information

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<b>Name</b>	SLC7A11 ( <a href="#">HGNC:11059</a> )
<b>Function</b>	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> ). Acts as an inhibitor of ferroptosis by mediating the import of L-kynurenine leading to anti-ferroptotic signaling propagation required to maintain L-cystine and glutathione homeostasis (PubMed: <a href="#">35245456</a> , PubMed: <a href="#">40246981</a> ). Also inhibits ferroptosis by acting as an atypical proton transporter that mediates a slow proton efflux from lysosomes via cystine and glutamate flux (PubMed: <a href="#">40280132</a> ). Glutamate and cystine contain side-chain

groups that are protonatable in the physiological range of lysosomal pH and cytosolic pH, respectively, enabling a slow lysosomal proton leak through a substrate-as-proton mechanism (PubMed:[40280132](#)). 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).

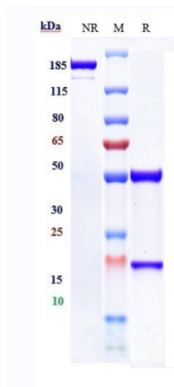
### Cellular Location

Cell membrane; Multi-pass membrane protein. Lysosome membrane; Multi-pass membrane protein. Cell projection, microvillus membrane; Multi-pass membrane protein. Note=Localized to the microvillous membrane of the placental syncytiotrophoblast (PubMed:[34120018](#)). Plasma membrane localization is impaired by LGALS13 (PubMed:[40246981](#))

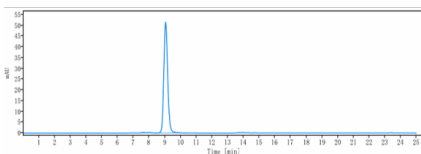
### Tissue Location

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

## Images



Anti-SLC7A11 Reference Antibody (Agilvax Patent Anti-Slc7A11) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%



The purity of Anti-SLC7A11 Reference Antibody (Agilvax Patent Anti-Slc7A11) is more than 95% ,determined by SEC-HPLC.

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