

Store at
-20C

#98051

xCT/SLC7A11 Antibody



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	M	Endogenous	35	Rabbit	#Q9WTR6	26570

Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

xCT/SLC7A11 Antibody recognizes endogenous levels of total mouse xCT/SLC7A11 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro25 of mouse xCT/SLC7A11 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The X_c⁻ cystine/glutamate antiporter consists of a light chain subunit (xCT/SLC7A11) that confers substrate specificity and a glycosylated heavy chain subunit (4F2hc/SLC3A2) located on the cell surface (1,2). The heterodimeric amino acid transport system X_c⁻ provides selective import of cystine into cells in exchange for glutamate and regulates intracellular glutathione (GSH) levels, essential for cellular protection from oxidative stress (3). Research studies have shown that xCT expression increases in various tumors, including gliomas, and have implicated xCT in GSH-mediated anticancer drug resistance (4,5). Researchers have found that xCT provides neuroprotection by enhancing glutathione export from non-neuronal cells (6). Moreover, investigators identified xCT as the fusion-entry receptor for Kaposi's sarcoma-associated herpesvirus (7).

Background References

1. Sato, H. et al. (2000) *Antioxid Redox Signal* 2, 665-71.
2. Sato, H. et al. (1999) *J Biol Chem* 274, 11455-8.
3. Lo, M. et al. (2008) *J Cell Physiol* 215, 593-602.
4. Huang, Y. et al. (2005) *Cancer Res* 65, 7446-54.
5. Liu, R. et al. (2007) *Mol Pharmacol* 72, 1637-46.
6. Shih, A.Y. et al. (2006) *J Neurosci* 26, 10514-23.
7. Kaleeba, J.A. and Berger, E.A. (2006) *Science* 311, 1921-4.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

M: Mouse

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