



CodeNo.KAL-KE021-EX

For research use only

Anti Mouse Cystine/Glutamic Acid (xCT) Polyclonal Antibody, Rabbit

Mammalian amino acid transport system is consisted of large variety of transporters, with the reflection of amino acid molecule variety, and is classified into various transport systems by the transportative substrate selectivity and the Na^+ dependence with the reflection of amino acid molecule variety.

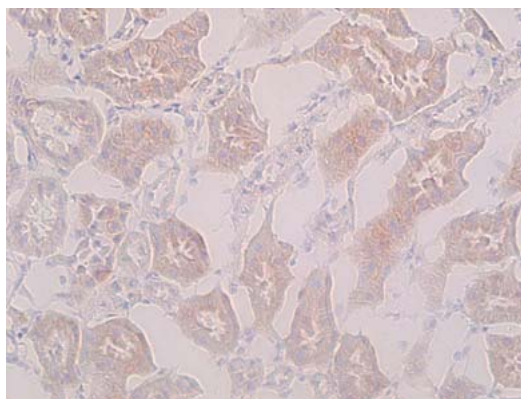
The amino acid transporter, cystine/glutamic acid transporter (xCT) for system x_c^- has been proposed to be responsible for the cystine transport through the plasma membrane. System x_c^- mediates an amino acid exchange and prefers cystine and glutamate as its substrates. The transporter designated as xCT requires 4F2 heavy chain (4F2hc:CD98) for its functional expression, and belongs to the family of amino acid transporters which associates with the type II membrane glycoproteins such as 4F2hc. In brain, it has been proposed that system x_c^- is up-regulated in glial cells upon the oxidative stress and plays an essential roles to protect neurons against oxidative stress.

This antibody has been proved to be useful for immunoblotting and immunohistochemistry.

Considering the peptide amino acid sequence, this antibody also seems to react with human xCT.

Package Size	25 μ g (250 μ L / vial)
Format	Rabbit polyclonal antibody 0.1mg/mL
Buffer	Block Ace as a stabilizer, containing 0.1%Proclin as bacteriostat
Storage	Store below -20°C Once thawed, store at 4°C. Repeated freeze-thaw cycles should be avoided.
Purification method	This antibody was purified from rabbit serum immunized with synthesized peptide of N- end of mouse xCT by peptide affinity chromatography.
Working dilution for	Immunohistochemistry: 5 μ g/mL ,for immunoblotting: 1 μ g/mL
HGNC Name	SLC7A11 (Solute Carrier family 7A11)

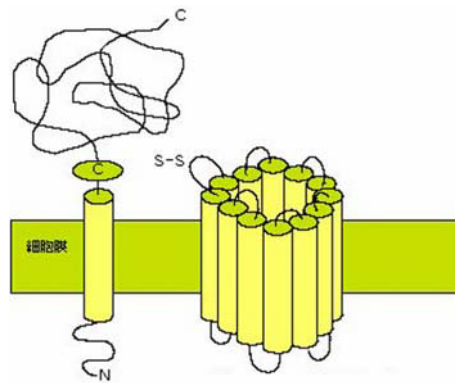
*HGNC: Human Gene Nomenclature Committee



Mouse Kidney (frozen section)



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4F2hc LAT Transporter Family

Heterodimeric Complex

【References】

1. Kim J.Y., Kanai Y., Chairoungdua A., Cha S.H., Matsuo H., kim D.K., Inatomi J., Sawa H., Ida Y., Endou H.,:Human cystine/glutamate transporter: cDNA cloning and upregulation by oxidative stress in glioma cells. *Biochim. Biophys.Acta.*1512: 335-344,2001.

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