

Datasheet: AHP1222

Description:	RABBIT ANTI HUMAN xCT (N-TERMINAL)
Specificity:	xCT (N-TERMINAL)
Other names:	SLC7A11
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	50 µg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin (1)	▪			20 - 30ug/ml
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	
Functional Assays			▪	

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

(1) This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose.

Target Species	Human
Product Form	Purified IgG - liquid
Antiserum Preparation	Antisera to human xCT were raised by repeated immunisations of rabbit with highly purified antigen. Purified IgG prepared by affinity chromatography.
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.1% Sodium Azide (NaN ₃)
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Synthetic peptide: N-terminal region of human xCT.

**External Database
Links**

UniProt:

[Q9UPY5](#) [Related reagents](#)

Entrez Gene:

[23657](#) SLC7A11 [Related reagents](#)

Specificity

Rabbit anti human xCT (N-terminal) antibody detects an epitope within the N-terminal (NT) of the cysteine/glutamate transporter xCT, which forms a complex with the 4F2 heavy chain (CD98), via a disulfide bond. This heterodimer forms a Na⁺ independent amino acid transport system which leads to the uptake of extracellular L-cystine in conjunction to L-glutamate efflux. This system is thought to play an important role in the protection of neurons and activated macrophages against oxidative stress.

xCT is the receptor which mediates Kaposi's sarcoma herpesvirus (KSHV) cell fusion.

**Histology Positive
Control Tissue**

Neurons or astrocytes

References

1. Kaleeba, J.A. & Berger, E.A. (2006) Kaposi's sarcoma-associated herpesvirus fusion-entry receptor: cystine transporter xCT. [Science. 311 \(5769\): 1921-4.](#)
2. Wang, H. *et al.* (2003) Expression of the activity of cystine/glutamate exchange transporter, system x(c)⁻, by xCT and rBAT. [Biochem Biophys Res Commun. 305 \(3\): 611-8.](#)
3. Jiménez-vidal, M. *et al.* (2004) Thiol modification of cysteine 327 in the eighth transmembrane domain of the light subunit xCT of the heteromeric cystine/glutamate antiporter suggests close proximity to the substrate binding site/permeation pathway. [J Biol Chem. 279 \(12\): 11214-21.](#)

Storage

Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

**Health And Safety
Information**

Material Safety Datasheet documentation #10303 available at:
10303: <https://www.bio-rad-antibodies.com/uploads/MSDS/10303.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

- Sheep Anti Rabbit IgG (STAR34...) [FITC](#)
Sheep Anti Rabbit IgG (STAR35...) [RPE](#)
Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)
Sheep Anti Rabbit IgG (2AB02...) [Biotin](#)
Sheep Anti Rabbit IgG (STAR36...) [DyLight@488](#), [DyLight@549](#), [DyLight@649](#),
 [DyLight@680](#), [DyLight@800](#)

Recommended Useful Reagents

[HISTAR DETECTION SYSTEM \(STAR3000A\)](#)
[HISTAR DETECTION SYSTEM \(STAR3000B\)](#)
[HISTAR DETECTION SYSTEM \(STAR3000C\)](#)
[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025A\)](#)
[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025C\)](#)

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