

# Product Datasheet

## **xCT Antibody NB300-317SS**

Unit Size: 0.025 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

[www.novusbio.com](http://www.novusbio.com)



[support@novusbio.com](mailto:support@novusbio.com)

### **Publications: 2**

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:  
[www.novusbio.com/NB300-317](http://www.novusbio.com/NB300-317)

Updated 6/15/2014 v.20.1

**NB300-317SS**

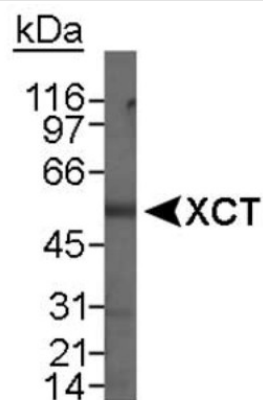
xCT Antibody

| Product Information         |   |
|-----------------------------|---|
| Unit Size                   | 0.025 ml  |
| Concentration               | 1 mg/ml   |
| Storage                     | Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.  |
| Clonality                   | Polyclonal  |
| Preservative                | 0.05% Sodium Azide  |
| Purity                      | Immunogen affinity purified   |
| Buffer                      | Tris-glycine, 150 mM NaCl   |
| Target Molecular Weight     | 55 kDa  |
| Product Description         |   |
| Host                        | Rabbit  |
| Gene ID                     | 23657   |
| Gene Symbol                 | SLC7A11   |
| Species                     | Human   |
| Species Reactivity          | Human. Predicted to react with mouse and canine based on 100% sequence homology. Immunogen sequence has 94% homology to rat.  |
| Immunogen                   | A synthetic peptide made to a region within the N-terminus of the mouse xCT protein (between residues 1-50). [UniProt# Q9WTR6]  |
| Product Application Details |   |
| Applications                | Western Blot, Immunocytochemistry/Immunofluorescence  |
| Recommended Dilutions       | Immunocytochemistry/Immunofluorescence 1:100-1:1000, Western Blot 0.5-2 ug/ml   |
| Application Notes           | This xCT antibody is useful for Immunocytochemistry/Immunofluorescence and Western blot. In Western blot a band is observed at ~55 kDa; in ICC/IF membrane and ER staining was visualized in HepG2 cells. |

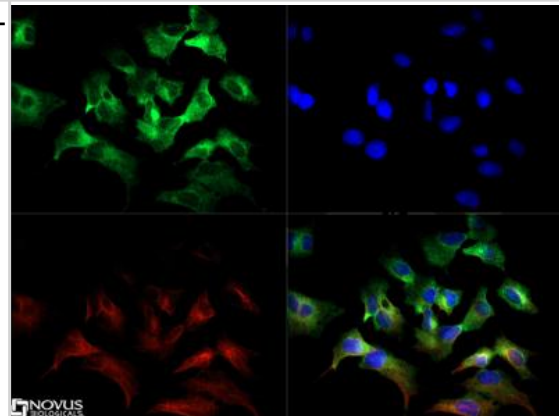


## Images

Western Blot: xCT Antibody [NB300-317] - Detection of XCT in total human stomach lysate using NB 300-317. 15 minute ECL exposure.



Immunocytochemistry/Immunofluorescence: xCT Antibody [NB300-317] - xCT antibody was tested in HepG2 cells with Dylight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red).



## Publications

Pampliega O, Domercq M, Soria FN et al. Increased expression of cystine/glutamate antiporter in multiple sclerosis. *J Neuroinflammation*. 2011 Jun [PMID: 21639880] (IHC-Fr, Human, Rat)

Liu R, Blower PE et al. Cystine-glutamate transporter SLC7A11 mediates resistance to geldanamycin but not to 17-(allylamino)-17-demethoxygeldanamycin. *Mol Pharmacol*;72(6):1637-46. 2007 Dec. [PMID: 17875604] (WB, Human)

## Procedures

### Protocol specific for xCT Antibody (NB300-317)

#### Western Blot Protocol

1. Perform SDS-PAGE (4-12%) on samples to be analyzed, loading 50 ug of total protein per lane.
2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.
3. Stain the blot using ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.
4. Rinse the blot in TBS for approximately 5 minutes.
5. Block the membrane using 5% non-fat dry milk in TBS for 1 hour.
6. Dilute the rabbit anti-XCT primary antibody (NB 300-317) in blocking buffer and incubate 2 hours at room temperature.
7. Wash the membrane in water for 5 minutes and apply the diluted rabbit-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
8. Wash the blot in TBS containing 0.05-0.1% Tween-20 for 10-20 minutes.
9. Wash the blot in type I water for an additional 10-20 minutes (this step can be repeated as required to reduce background).
10. Apply the detection reagent of choice in accordance with the manufacturers instructions (Amersham's ECL is the standard reagent used at Novus Biologicals).

Note: Tween-20 can be added to the blocking buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.

### Immunocytochemistry/Immunofluorescence Protocol for xCT Antibody (NB300-317)

#### Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,000 and incubate for 10 minutes. Wash a third time for 10 minutes.
9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

\*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.





### **Novus Biologicals USA**

8100 Southpark Way, A-8  
Littleton, CO 80120  
USA  
Phone: 303.730.1950  
Toll Free: 1.888.506.6887  
Fax: 303.730.1966  
novus@novusbio.com

### **Novus Biologicals Canada**

461 North Service Road West, Unit B37  
Oakville, ON L6M 2V5  
Canada  
Phone: 905.827.6400  
Toll Free: 855.668.8722  
Fax: 905.827.6402  
canada@novusbio.com

### **Novus Biologicals Europe**

19 Barton Lane  
Abingdon Science Park  
Abingdon, OX14 3NB, United Kingdom  
Phone: (44) (0) 1235 529449  
Free Phone: 0800 37 34 15  
Fax: (44) (0) 1235 533420  
info@bio-techne.com

### **General Contact Information**

www.novusbio.com  
Technical Support: technical@novusbio.com  
Orders: orders@novusbio.com  
General: novus@novusbio.com

### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

**For more information on our guarantee, please visit [www.novusbio.com/guarantee](http://www.novusbio.com/guarantee).**

