## Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-xCT antibody [EPR8290(2)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rabbit monoclonal [EPR8290(2)] to xCT</td>
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<td>Host species</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: WB, IP</td>
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<tr>
<td></td>
<td>Unsuitable for: Flow Cyt, ICC/IF or IHC-P</td>
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<tr>
<td>Species reactivity</td>
<td>Reacts with: Mouse, Rat, Human</td>
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<tr>
<td>Immunogen</td>
<td>Synthetic peptide within Human xCT aa 1-100 (Cysteine residue). The exact sequence is proprietary. Database link: Q9UPY5 (Peptide available as ab178606)</td>
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<tr>
<td>Positive control</td>
<td>WB: A549, HepG2, U87-MG and BxPC-3 cell lysates. Human, at and mouse heart tissue lysates. IP: HepG2 cells lysate.</td>
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</table>
| General notes         | This product is a recombinant monoclonal antibody, which offers several advantages including:  
                          - High batch-to-batch consistency and reproducibility  
                          - Improved sensitivity and specificity  
                          - Long-term security of supply  
                          - Animal-free production  
                          For more information see here.  
                          Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.  
                          We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team. |
Form: Liquid


Storage buffer: pH: 7.20
Preservative: 0.01% Sodium azide
Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

Purity: Protein A purified

Clonality: Monoclonal

Clone number: EPR8290(2)

Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab175186 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
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<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>WB</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/1000 - 1/10000. Predicted molecular weight: 55 kDa. Can be blocked with xCT peptide (ab178606).</td>
</tr>
<tr>
<td>IP</td>
<td></td>
<td>1/10 - 1/100.</td>
</tr>
</tbody>
</table>

Application notes: Is unsuitable for Flow Cyt, ICC/IF or IHC-P.

Target

Function: Sodium-independent, high-affinity exchange of anionic amino acids with high specificity for anionic form of cystine and glutamate.

Sequence similarities: Belongs to the amino acid-polyamine-organocation (APC) superfamily. L-type amino acid transporter (LAT) (TC 2.A.3.8) family.

Cellular localization: Membrane.

Form: xCT has a predicted molecular weight of 55 kDa; however it has a high number of hydrophobic residues which may affect the migration of the protein in SDS-PAGE. Endogenous monomeric xCT is expected to migrate at ~35 kDa and modified-xCT is expected to migrate at ~55 kDa (PMID: 17035536)

Images
Western blot - Anti-xCT antibody [EPR8290(2)] (ab175186)

**All lanes**: Anti-xCT antibody [EPR8290(2)] (ab175186) at 1/10000 dilution (Purified)

**Lane 1**: A549 (Human lung carcinoma epithelial cell) whole cell lysates

**Lane 2**: Human heart lysates

**Lane 3**: Mouse heart lysates

**Lane 4**: Rat heart lysates

Lysates/proteins at 15 µg per lane.

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

**Predicted band size**: 55 kDa

**Observed band size**: 55 kDa

Immunoprecipitation - Anti-xCT antibody [EPR8290(2)] (ab175186)

ab175186 (purified) at 1:20 dilution (0.5µg) immunoprecipitating xCT in HepG2 whole cell lysate.

Lane 1 (input): HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate 10µg

Lane 2 (+): ab175186 & HepG2 whole cell lysate

Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab175186 in HepG2 whole cell lysate

For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1:1000 dilution.

Blocking and diluting buffer: 5% NFDM/TBST.
**Western blot - Anti-xCT antibody [EPR8290(2)] (ab175186)**

- **All lanes**: Anti-xCT antibody [EPR8290(2)] (ab175186) at 1/1000 dilution
- **Lane 1**: A549 (Human lung carcinoma cell line) cell lysates
- **Lane 2**: HepG2 (Human liver hepatocellular carcinoma cell line) cell lysates
- **Lane 3**: U-87 MG (Human glioblastoma-astrocytoma epithelial cell line) cell lysates
- **Lane 4**: BxPC-3 (Human pancreas adenocarcinoma cell line) cell lysates

Lysates/proteins at 10 µg per lane.

**Predicted band size**: 55 kDa

This image was generated using the unpurified version of the product.

**Immunoprecipitation - Anti-xCT antibody [EPR8290(2)] (ab175186)**

Western blot analysis on immunoprecipitation pellet from (Lane 1) HepG2 cells lysate or (Lane 2) 1 X PBS (negative control) using ab175186 at a 1/10 dilution and HRP-conjugated anti-rabbit IgG preferentially detecting the non-reduced form of rabbit IgG.

This image was generated using the unpurified version of the product.

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