


## Product datasheet

# Anti-Thioredoxin 2 antibody [EPR15225] - BSA and Azide free ab240292

Recombinant RabMAb

5 Images

### Overview

Product name	Anti-Thioredoxin 2 antibody [EPR15225] - BSA and Azide free
Description	Rabbit monoclonal [EPR15225] to Thioredoxin 2 - BSA and Azide free
Host species	Rabbit
Tested applications	<b>Suitable for:</b> WB, Flow Cyt (Intra), ICC/IF, IHC-P
Species reactivity	<b>Reacts with:</b> Mouse, Human <b>Predicted to work with:</b> Rat 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
General notes	<p>ab240292 is the carrier-free version of <a href="#">ab185544</a>.</p> <p>Our <b>carrier-free</b> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

## Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR15225
Isotype	IgG

## Applications

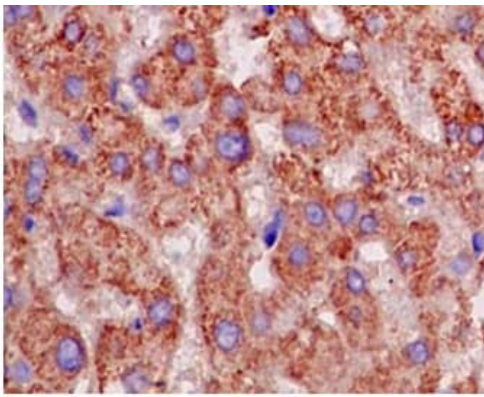
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab240292 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Detects a band of approximately 12 kDa (predicted molecular weight: 18 kDa).
Flow Cyt (Intra)		Use at an assay dependent concentration. <b>ab199376</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

## Target

**Relevance** Thioredoxins (Trx) are small, multi-functional proteins with oxidoreductase activity and are ubiquitous in essentially all living cells. Trx contains a redox-active disulfide/dithiol group within the conserved Cys-Gly-Pro-Cys active site. The two cysteine residues in the conserved active centers can be oxidized to form intramolecular disulfide bonds. Reduction of the active site disulfide in oxidized Trx is catalyzed by Trx reductase with NADPH as the electron donor. The reduced Trx is a hydrogen donor for ribonucleotide reductase, the essential enzyme for DNA synthesis, and a potent general protein disulfide reductase with numerous functions in growth and redox regulations. Specific protein disulfide targets for reduction by Trx include protein disulfide isomerase(PDI) and a number of transcription factors such as p53, NF-κB and AP-1. Trx is also capable of removing H<sub>2</sub>O<sub>2</sub>, particularly when it is coupled with either methionine sulfoxide reductase or several isoforms of peroxiredoxins.

**Cellular localization** Mitochondrial

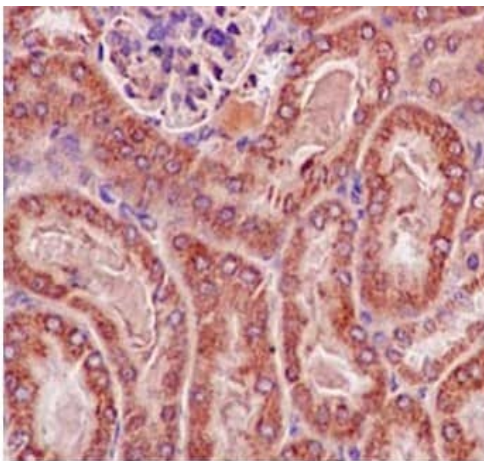


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thioredoxin 2 antibody [EPR15225] - BSA and Azide free (ab240292)

Immunohistochemical analysis of paraffin-embedded Human liver tissue labeling Thioredoxin 2 with [ab185544](#) at 1/500 dilution. Counter stain Hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab185544](#)).

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.

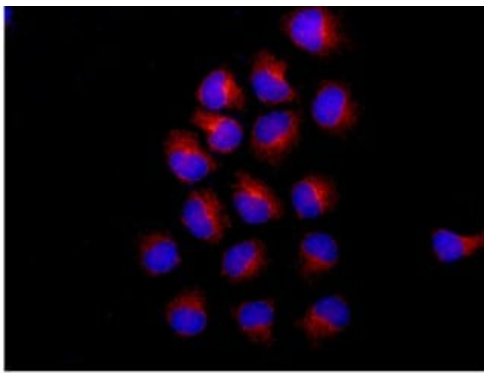


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thioredoxin 2 antibody [EPR15225] - BSA and Azide free (ab240292)

Immunohistochemical analysis of paraffin-embedded Mouse kidney tissue labeling Thioredoxin 2 with [ab185544](#) at 1/500 dilution. Counter stain Hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab185544](#)).

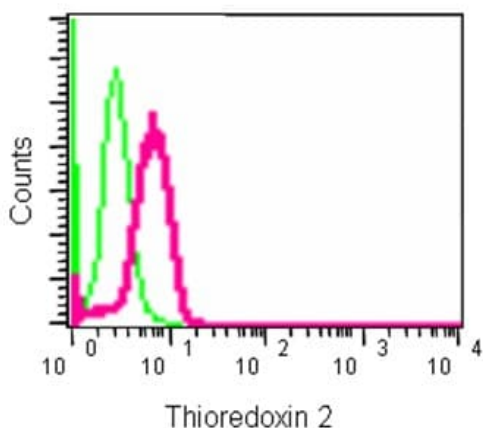
Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Thioredoxin 2 antibody [EPR15225] - BSA and Azide free (ab240292)

Immunofluorescent analysis of 4% paraformaldehyde fixed HeLa cells labeling Thioredoxin 2 with **ab185544** at 1/250 dilution. Secondary antibody Goat anti rabbit IgG (Alexa Fluor®555) at a 1/200 dilution. Counterstained with Dapi blue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab185544**).



Flow Cytometry (Intracellular) - Anti-Thioredoxin 2 antibody [EPR15225] - BSA and Azide free (ab240292)

Intracellular Flow Cytometry analysis of 2% paraformaldehyde fixed K562 cells labeling Thioredoxin 2 with **ab185544** at 1/150 dilution (pink) or a rabbit IgG isotype control (green), followed by secondary Goat anti rabbit IgG (FITC) at 1/150 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab185544**).

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-Thioredoxin 2 antibody [EPR15225] - BSA and Azide free (ab240292)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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