

## Product datasheet

### Anti-Xanthine Oxidase antibody [EPR4605] $\alpha$ b109235

Recombinant RabMAb

★★★★★ **3 Abreviews** **24 References** [6 Images](#)

#### Overview

<b>Product name</b>	Anti-Xanthine Oxidase antibody [EPR4605]
<b>Description</b>	Rabbit monoclonal [EPR4605] to Xanthine Oxidase
<b>Host species</b>	Rabbit
<b>Specificity</b>	The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: Human fetal liver, Mouse and Rat liver tissue lysates, 293T cell lysates, Human milk IHC-P: Human liver tissue
<b>General notes</b>	<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

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	<p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol, 0.05% BSA</p>
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal

Clone number	EPR4605
Isotype	IgG

## Applications

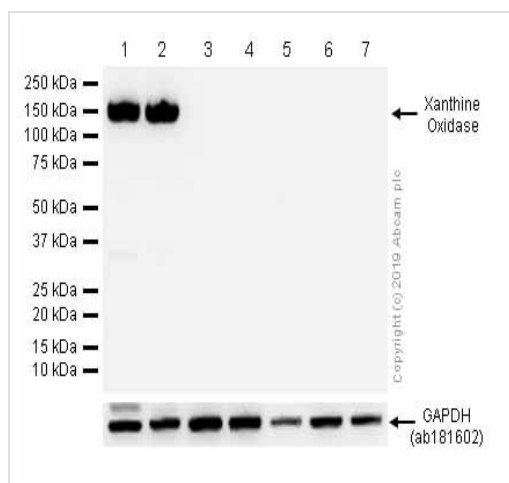
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab109235 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (2)	1/1000 - 1/10000. Detects a band of approximately 150 kDa (predicted molecular weight: 146 kDa).
IHC-P	★★★★★ (1)	1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. See <b><u>IHC antigen retrieval protocols</u></b> .  The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.

## Target

<b>Function</b>	Key enzyme in purine degradation. Catalyzes the oxidation of hypoxanthine to xanthine. Catalyzes the oxidation of xanthine to uric acid. Contributes to the generation of reactive oxygen species. Has also low oxidase activity towards aldehydes (in vitro).
<b>Tissue specificity</b>	Detected in milk (at protein level).
<b>Involvement in disease</b>	Defects in XDH are the cause of xanthinuria type 1 (XU1) [MIM:278300]. Xanthinuria is characterized by excretion of very large amounts of xanthine in the urine and a tendency to form xanthine stones. Uric acid is strikingly diminished in serum and urine. XU1 is due to isolated xanthine dehydrogenase. XU1 patients can metabolize allopurinol.
<b>Sequence similarities</b>	Belongs to the xanthine dehydrogenase family. Contains 1 2Fe-2S ferredoxin-type domain. Contains 1 FAD-binding PCMH-type domain.
<b>Post-translational modifications</b>	Subject to partial proteolysis; this alters the enzyme from the dehydrogenase form (D) to the oxidase form (O). Contains sulfhydryl groups that are easily oxidized (in vitro); this alters the enzyme from the dehydrogenase form (D) to the oxidase form (O).
<b>Cellular localization</b>	Cytoplasm. Peroxisome. Secreted.

## Images



Western blot - Anti-Xanthine Oxidase antibody  
[EPR4605] (ab109235)

**All lanes :** Anti-Xanthine Oxidase antibody [EPR4605] (ab109235)  
at 1/10000 dilution (Purified)

**Lane 1 :** Mouse liver lysates

**Lane 2 :** Rat liver lysates

**Lane 3 :** Mouse heart lysates

**Lane 4 :** Mouse brain lysates

**Lane 5 :** Mouse lung lysates

**Lane 6 :** Mouse kidney lysates

**Lane 7 :** Mouse spleen lysates

Lysates/proteins at 20 µg per lane.

### Secondary

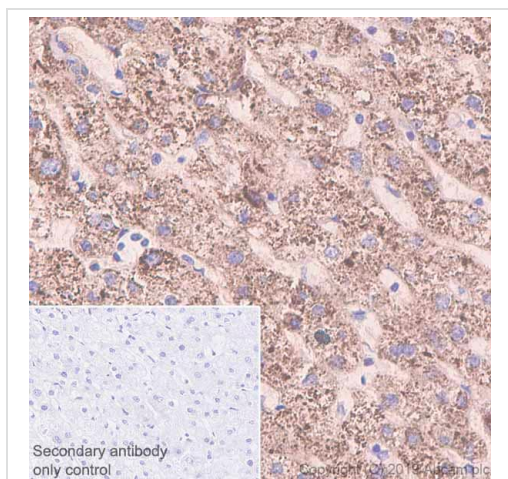
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000  
dilution

**Predicted band size:** 146 kDa

**Observed band size:** 146 kDa

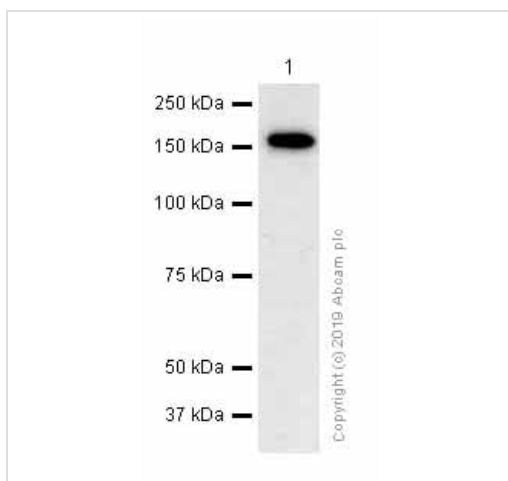
Blocking/Diluting Buffer and concentration: 5% NFDM/TBST

Xanthine Oxidase is abundantly expressed in liver and low in heart,  
brain and lung as what is described in PMID: 10462034



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Xanthine Oxidase antibody [EPR4605] (ab109235)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human liver tissue sections labeling Xanthine Oxidase with purified ab109235 at 1/100 dilution (2.3 µg/mL). Heat mediated antigen retrieval was performed using [ab93684](#) (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Western blot - Anti-Xanthine Oxidase antibody [EPR4605] (ab109235)

Anti-Xanthine Oxidase antibody [EPR4605] (ab109235) at 1/5000 dilution (Purified) + Human milk lysates at 15 µg

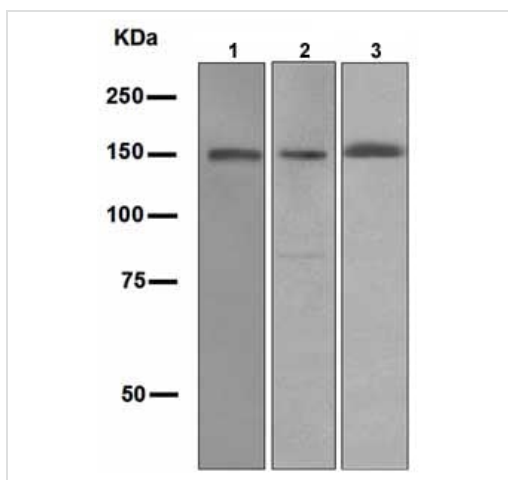
#### Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

**Predicted band size:** 146 kDa

**Observed band size:** 146 kDa

Blocking/Diluting Buffer and concentration: 5% NFDM/TBST



Western blot - Anti-Xanthine Oxidase antibody [EPR4605] (ab109235)

**All lanes :** Anti-Xanthine Oxidase antibody [EPR4605] (ab109235) at 1/1000 dilution (unpurified)

**Lane 1 :** Human fetal liver lysate

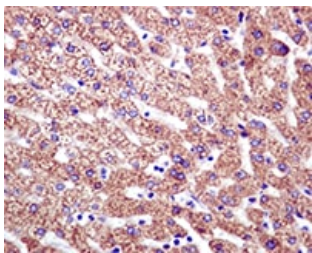
**Lane 2 :** 293T lysate

**Lane 3 :** Human milk lysate

Lysates/proteins at 10 µg per lane.

**Predicted band size:** 146 kDa

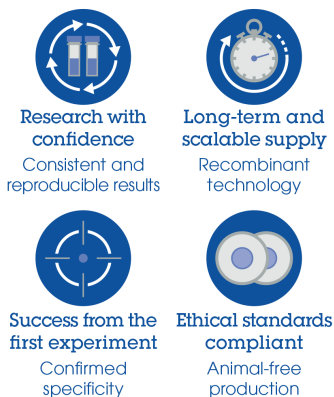
Secondary antibody - [anti-rabbit HRP \(ab6721\)](#)



Immunohistochemical analysis of Xanthine Oxidase expression in paraffin-embedded Human liver tissue using ab109235 (unpurified) at 1/100 dilution. Heat mediated antigen retrieval was performed with citrate buffer pH 6 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Xanthine Oxidase antibody [EPR4605] (ab109235)

#### Why choose a recombinant antibody?



Anti-Xanthine Oxidase antibody [EPR4605]  
(ab109235)

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