

Product datasheet

Anti-HPRT antibody [EPR5299] ab109021

KO VALIDATED Recombinant RabMAb

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Overview

Product name	Anti-HPRT antibody [EPR5299]
Description	Rabbit monoclonal [EPR5299] to HPRT
Host species	Rabbit
Specificity	The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
Tested applications	Suitable for: WB, IP, IHC-P Unsuitable for: Flow Cyt or ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa HepG2, A549, and MCF7 cell lysates, Mouse brain and Rat brain tissue lysates IHC-P: Human lung and colon cancer IP: Rat brain lysate
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - 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 .

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR5299
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab109021 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

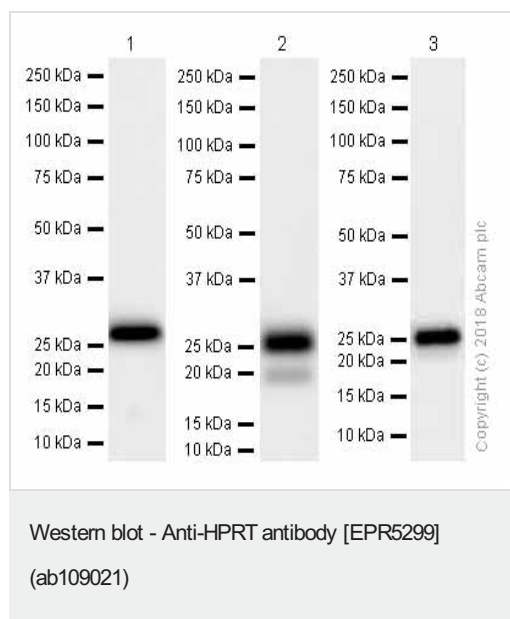
Application	Abreviews	Notes
WB		1/10000 - 1/50000. Predicted molecular weight: 25 kDa.
IP		1/10 - 1/100.
IHC-P		<p>1/150. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. Heat up to 98°C, below boiling, and then let cool for 10-20 min. See <u>IHC antigen retrieval protocols</u>.</p> <p>For unpurified use at 1/50 - 1/100</p> <p>The mouse and rat recommendation is based on the WB results.</p>

Application notes Is unsuitable for Flow Cyt or ICC/IF.

Target

Function	Converts guanine to guanosine monophosphate, and hypoxanthine to inosine monophosphate. Transfers the 5-phosphoribosyl group from 5-phosphoribosylpyrophosphate onto the purine. Plays a central role in the generation of purine nucleotides through the purine salvage pathway.
Pathway	Purine metabolism; IMP biosynthesis via salvage pathway; IMP from hypoxanthine: step 1/1.
Involvement in disease	<p>Defects in HPRT1 are the cause of Lesch-Nyhan syndrome (LNS) [MIM:300322]. LNS is characterized by complete lack of enzymatic activity that results in hyperuricemia, choreoathetosis, mental retardation, and compulsive self-mutilation.</p> <p>Defects in HPRT1 are the cause of gout HPRT-related (GOUT-HPRT) [MIM:300323]; also known as HPRT-related gout or Kelley-Seegmiller syndrome. Gout is characterized by partial enzyme activity and hyperuricemia.</p>
Sequence similarities	Belongs to the purine/pyrimidine phosphoribosyltransferase family.
Cellular localization	Cytoplasm.

Images



All lanes : Anti-HPRT antibody [EPR5299] (ab109021) at 0.02 µg/ml (purified)

Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Lane 2 : Mouse brain lysates

Lane 3 : Rat brain lysates

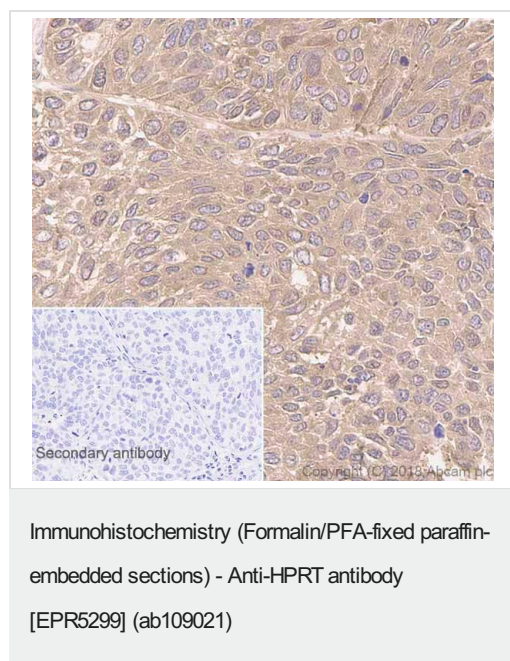
Lysates/proteins at 15 µg per lane.

Secondary

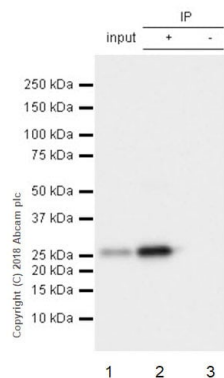
All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 0.02 µg/ml

Predicted band size: 25 kDa

Blocking and diluting buffer: 5% NFDM/TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human lung cancer tissue sections labeling HPRT with Purified ab109021 at 1:150 dilution (1.19 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



Immunoprecipitation - Anti-HPRT antibody
[EPR5299] (ab109021)

ab109021 (purified) at 1:30 dilution (2µg) immunoprecipitating HPRT in Rat brain lysate.

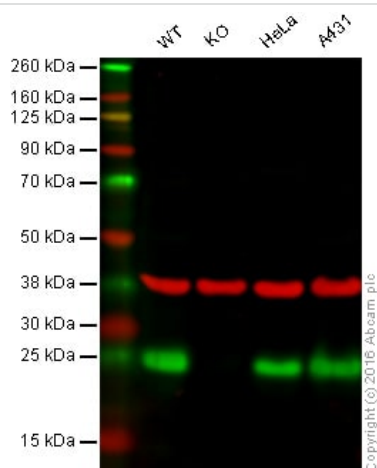
Lane 1 (input): Rat brain lysate 10µg

Lane 2 (+): ab109021 & Rat brain lysate

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab109021 in Rat brain 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-HPRT antibody [EPR5299]
(ab109021)

Lane 1: Wild type HAP1 whole cell lysate (20 µg)

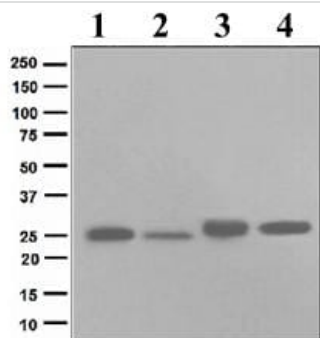
Lane 2: HPRT1 knockout HAP1 whole cell lysate (20 µg)

Lane 3: HeLa whole cell lysate (20 µg)

Lane 4: A431 whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab109021 observed at 25 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

Unpurified ab109021 was shown to specifically react with HPRT1 in wild-type HAP1 cells. No band was observed when HPRT1 knockout samples were examined. Wild-type and HPRT1 knockout samples were subjected to SDS-PAGE. ab109021 and **ab8245** (Mouse anti GAPDH loading control) were both diluted at 1/10,000 and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-HPRT antibody [EPR5299] (ab109021)

All lanes : Anti-HPRT antibody [EPR5299] (ab109021) at 1/10000 dilution (Unpurified)

Lane 1 : HeLa cell lysate

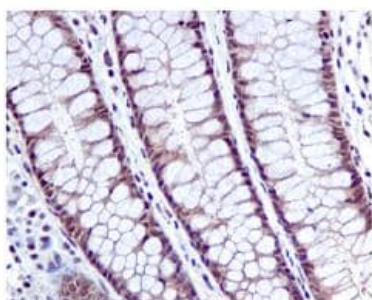
Lane 2 : HepG2 cell lysate

Lane 3 : A549 cell lysate

Lane 4 : MCF7 cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 25 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HPRT antibody [EPR5299] (ab109021)

Unpurified ab109021 at 1/50 dilution staining HPRT in Human colon by Immunohistochemistry, Paraffin-embedded tissue.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

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-HPRT antibody [EPR5299] (ab109021)

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

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