

Product datasheet

Anti-HPRT antibody [EPR5299] ab109021

KO VALIDATED Recombinant RabMAb

★★★★☆ 1 Abreviews 4 References 6 Images

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
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Human HPRT aa 200-300. The exact sequence is proprietary.
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

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.

This product is a [recombinant rabbit monoclonal antibody](#).

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, 59% PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR5299
Isotype	IgG

Applications

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.

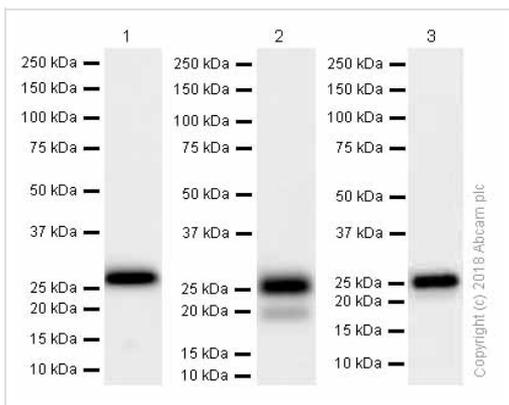
Application	Abreviews	Notes
WB		1/10000 - 1/50000. Predicted molecular weight: 25 kDa.
IP		1/10 - 1/100.
IHC-P		1/150. Heat up to 98 °C, below boiling, and then let cool for 10-20 min. See IHC antigen retrieval protocols . For unpurified use at 1/50 - 1/100 The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.

Application notes Is unsuitable for Flow Cyt or ICC.

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	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. 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.
Sequence similarities	Belongs to the purine/pyrimidine phosphoribosyltransferase family.
Cellular localization	Cytoplasm.

Images



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

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

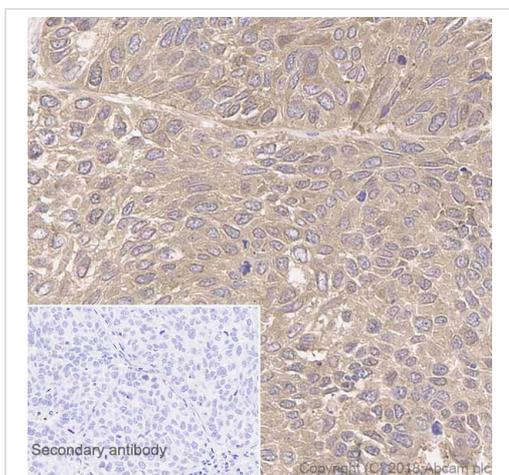
Lysates/proteins at 15 µg per lane.

Secondary

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

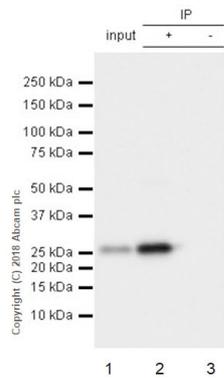
Predicted band size: 25 kDa

Blocking and diluting buffer: 5% NFDm/TBST.



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

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.Hematoxylinwas 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

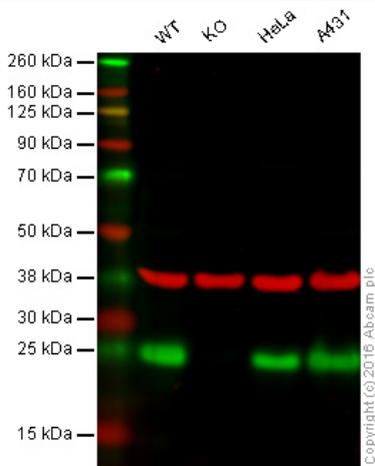
Lane 2 (+): ab109021 & Rat brain lysate

Lane 3 (-): Rabbit monoclonal IgG ([ab172730](#)) instead of ab109021 in Rat brain lysate

For western blotting, VeriBlot for IP secondary antibody (HRP)

([ab131366](#)) was used as the secondary antibody 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)

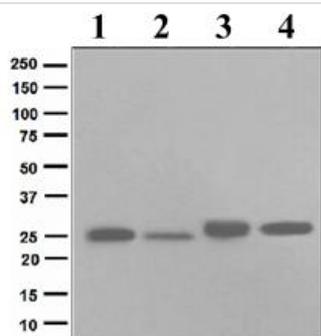
Lane 2: HPRT1 knockout HAP1 whole cell lysate (20 µg)

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

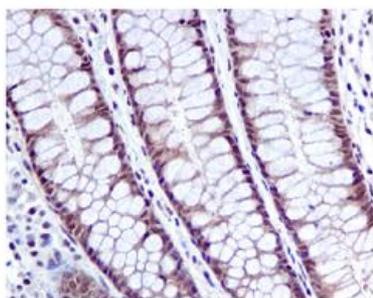
Lane 2 : HepG2 cell lysate

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.

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