

Product datasheet

Anti-SAMHD1 antibody [EPR13040(B)] - C-terminal ab177462

KO VALIDATED Recombinant RabMAb[®]

7 Images

Overview

Product name	Anti-SAMHD1 antibody [EPR13040(B)] - C-terminal
Description	Rabbit monoclonal [EPR13040(B)] to SAMHD1 - C-terminal
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, ICC/IF, Flow Cyt Unsuitable for: IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human SAMHD1 aa 600 to the C-terminus (C terminal) (Cysteine residue). The exact sequence is proprietary. Database link: Q9Y3Z3
Positive control	THP1, K562, HeLa and MCF7 cell lysates. Human pancreas and tonsil tissue. MCF7 and THP1 cells.
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](#).

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise[™] guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

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: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	EPR13040(B)
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab177462** in the following tested applications.

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

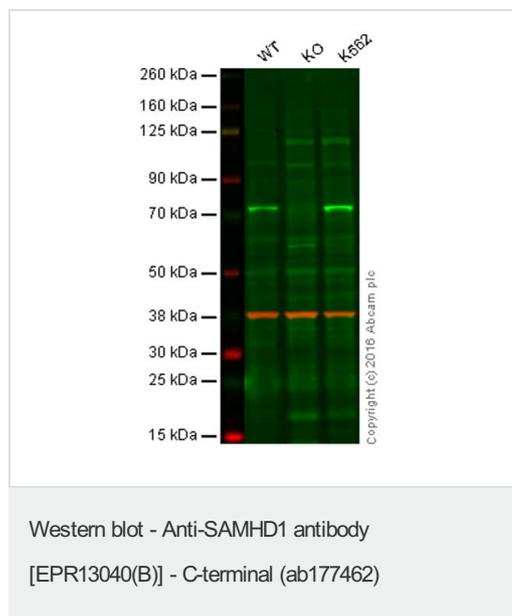
Application	Abreviews	Notes
WB		1/10000 - 1/50000. Predicted molecular weight: 72 kDa.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		1/100 - 1/250.
Flow Cyt		1/10 - 1/100. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Application notes	Is unsuitable for IP.
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Target

Function	Putative nuclease involved in innate immune response by acting as a negative regulator of the cell-intrinsic antiviral response. May play a role in mediating proinflammatory responses to TNF-alpha signaling.
Tissue specificity	Expressed in heart, skeletal muscle, spleen, liver, small intestine, placenta, lung and peripheral blood leukocytes. No expression is seen in brain and thymus.
Involvement in disease	Defects in SAMHD1 are the cause of Aicardi-Goutieres syndrome type 5 (AGS5) [MIM:612952]. A form of Aicardi-Goutieres syndrome, a genetically heterogeneous disease characterized by cerebral atrophy, leukoencephalopathy, intracranial calcifications, chronic cerebrospinal fluid (CSF) lymphocytosis, increased CSF alpha-interferon, and negative serologic investigations for common prenatal infection. Clinical features as thrombocytopenia, hepatosplenomegaly and elevated hepatic transaminases along with intermittent fever may erroneously suggest an infective process. Severe neurological dysfunctions manifest in infancy as progressive microcephaly, spasticity, dystonic posturing and profound psychomotor retardation. Death often occurs in early childhood.
Sequence similarities	Belongs to the SAMHD1 family. Contains 1 HD domain. Contains 1 SAM (sterile alpha motif) domain.
Cellular localization	Nucleus.

Images



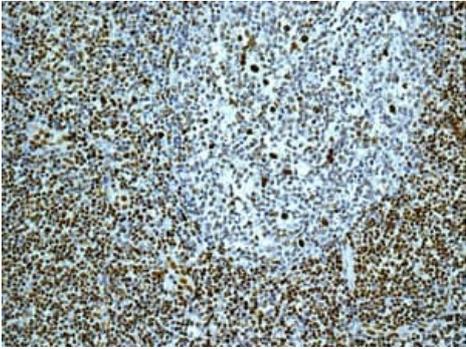
Lane 1: Wild-type HAP1 cell lysate (20 µg)

Lane 2: SAMHD1 knockout HAP1 cell lysate (20 µg)

Lane 3: K562 cell lysate (20 µg)

Lanes 1 - 3: Merged signal (red and green). Green - ab177462 observed at 70 kDa. Red - loading control, ab8245, observed at 37 kDa.

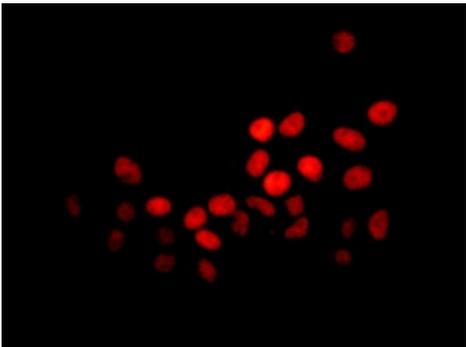
ab177462 was shown to recognize SAMHD1 when SAMHD1 knockout samples were used, along with additional cross-reactive bands. Wild-type and SAMHD1 knockout samples were subjected to SDS-PAGE. ab177462 and ab8245 (loading control to GAPDH) were both diluted 1/10000 and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ab216776 secondary antibodies at 1/10000 dilution for 1 h at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SAMHD1 antibody [EPR13040(B)] - C-terminal (ab177462)

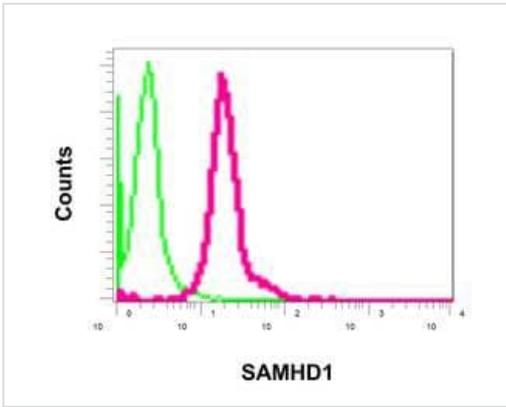
Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labeling SAMHD1 with ab177462 at 1/100 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



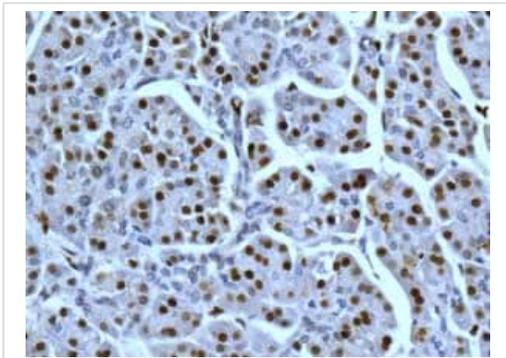
Immunocytochemistry/ Immunofluorescence - Anti-SAMHD1 antibody [EPR13040(B)] - C-terminal (ab177462)

Immunofluorescence analysis of MCF7 cells labeling SAMHD1 with ab177462 at 1/100 dilution.



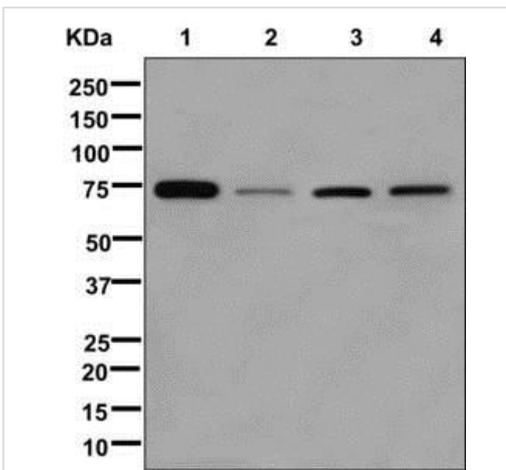
Flow Cytometry - Anti-SAMHD1 antibody
[EPR13040(B)] - C-terminal (ab177462)

Flow cytometric analysis of permeabilized THP1 cells labeling SAMHD1 (red) with ab177462 at 1/10 dilution or rabbit IgG (negative) (green).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SAMHD1 antibody
[EPR13040(B)] - C-terminal (ab177462)

Immunohistochemical analysis of paraffin-embedded Human pancreas tissue labeling SAMHD1 with ab177462 at 1/100 dilution. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-SAMHD1 antibody
[EPR13040(B)] - C-terminal (ab177462)

All lanes : Anti-SAMHD1 antibody [EPR13040(B)] - C-terminal (ab177462) at 1/10000 dilution

- Lane 1 :** THP1 cell lysate
- Lane 2 :** K562 cell lysate
- Lane 3 :** HeLa cell lysate
- Lane 4 :** MCF7 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat-anti-rabbit HRP at 1/2000 dilution

Developed using the ECL technique.

Predicted band size: 72 kDa

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-SAMHD1 antibody [EPR13040(B)] - C-terminal
(ab177462)

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

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- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
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