


Product datasheet

Anti-ATIC antibody [F38 P7 H9] ab33520

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Overview

Product name	Anti-ATIC antibody [F38 P7 H9]
Description	Mouse monoclonal [F38 P7 H9] to ATIC
Host species	Mouse
Specificity	This antibody is specific to ATIC.
Tested applications	Suitable for: IHC-P, Flow Cyt, WB
Species reactivity	Reacts with: Human Predicted to work with: Chicken 
Immunogen	Synthetic peptide corresponding to Human ATIC aa 583-592 conjugated to Ovalbumin. Sequence: AHTNLRLFHH Run BLAST with Run BLAST with
Positive control	Recombinant Human ATIC protein (ab114743) can be used as a positive control in WB. WB: Hep G2, HCT 116, K-562, COLO 205, NTERA-2 and HT -29 cell lysates. IHC-P: Human colon carcinoma tissue .
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. 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, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS, 0.1% BSA
Purity	Protein G purified
Clonality	Monoclonal

Clone number F38 P7 H9
Isotype IgG1

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab33520 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
IHC-P	★★★★★ (1)	Use a concentration of 5 µg/ml.
Flow Cyt		Use 1 µg for 10 ⁶ cells. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
WB		Use a concentration of 2 µg/ml. Predicted molecular weight: 65 kDa.

Target

Function Bifunctional enzyme that catalyzes 2 steps in purine biosynthesis.

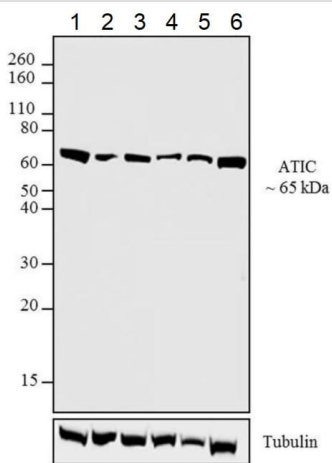
Pathway Purine metabolism; IMP biosynthesis via de novo pathway; 5-formamido-1-(5-phospho-D-ribose)imidazole-4-carboxamide from 5-amino-1-(5-phospho-D-ribose)imidazole-4-carboxamide (10-formyl THF route): step 1/1.
Purine metabolism; IMP biosynthesis via de novo pathway; IMP from 5-formamido-1-(5-phospho-D-ribose)imidazole-4-carboxamide: step 1/1.

Involvement in disease Defects in ATIC are the cause of AICA-ribosuria [MIM:608688]; also known as AICA-ribosiduria. AICA-ribosuria is a neurologically devastating inborn error of purine biosynthesis. AICA-ribosuria patients excrete massive amounts of AICA-riboside in the urine and accumulate AICA-ribotide and its derivatives in erythrocytes and fibroblasts. AICA-ribosuria causes profound mental retardation, epilepsy, dysmorphic features and congenital blindness.

Sequence similarities Belongs to the purH family.

Domain The IMP cyclohydrolase activity resides in the N-terminal region.

Images



Western blot - Anti-ATIC antibody [F38 P7 H9] (ab33520)

All lanes : Anti-ATIC antibody [F38 P7 H9] (ab33520) at 2 µg/ml

Lane 1 : Hep G2 (Human liver hepatocellular carcinoma cell line) whole cell lysate

Lane 2 : HCT116 (Human colorectal carcinoma cell line) whole cell lysate

Lane 3 : K-562 (Human chronic myelogenous leukemia lymphoblast cell line) whole cell lysate

Lane 4 : COLO 205 (Human colon adenocarcinoma cell line) whole cell lysate

Lane 5 : NTERA-2 (Human malignant pluripotent embryonic carcinoma cell line) whole cell lysate

Lane 6 : HT-29 (Human colorectal adenocarcinoma cell line) whole cell lysate

Lysates/proteins at 30 µg per lane.

Secondary

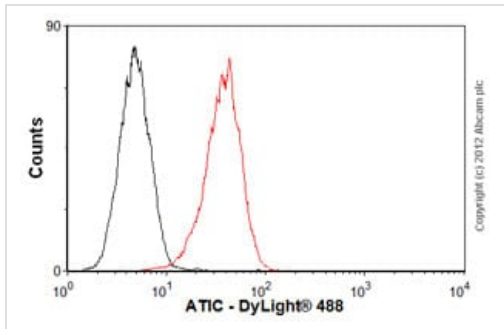
All lanes : Goat anti-Mouse IgG (H+L) Superclonal™ Secondary Antibody, HRP conjugate at 1/2500 dilution

Predicted band size: 65 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATIC antibody [F38 P7 H9] (ab33520)

ab33520, at a concentration of 5 µg/ml, staining ATIC in Human colon carcinoma tissue by Immunohistochemistry.



Flow Cytometry - Anti-ATIC antibody [F38 P7 H9] (ab33520)

Overlay histogram showing HeLa cells stained with ab33520 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab33520, 1 μ g/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2 μ g/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HeLa cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

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

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