Overview

Product name: Anti-Alanine Transaminase antibody [EPR19616]
Description: Rabbit monoclonal [EPR19616] to Alanine Transaminase
Host species: Rabbit
Tested applications: Suitable for: WB, ICC/IF, Flow Cyt
Species reactivity: Reacts with: Mouse, Rat, Human
Immunogen: Recombinant fragment within Human Alanine Transaminase aa 250 to the C-terminus. The exact sequence is proprietary.
Database link: P24298

Positive control: WB: Human fetal liver and fetal kidney lysates; Human skeletal muscle, Mouse muscle, Rat muscle and Mouse liver lysates; HepG2 whole cell lysate; Mouse and rat brain and heart lysates.
ICC/IF: HepG2 and HT-29 cells.
Flow Cyt: HepG2 cells.

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.
This product is a recombinant rabbit monoclonal antibody.

Properties

Form: Liquid
Storage buffer: Preservative: 0.01% Sodium azide
Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity: Protein A purified
Clonality: Monoclonal
Clone number: EPR19616
Isotype: IgG

Function:
Catalyzes the reversible transamination between alanine and 2-oxoglutarate to form pyruvate and glutamate. Participates in cellular nitrogen metabolism and also in liver gluconeogenesis starting with precursors transported from skeletal muscles.

Tissue specificity:
Liver, kidney, heart, and skeletal muscles. Expressed at moderate levels in the adipose tissue.

Pathway:
Amino-acid degradation; L-alanine degradation via transaminase pathway; pyruvate from L-alanine: step 1/1.

Sequence similarities:
Belongs to the class-I pyridoxal-phosphate-dependent aminotransferase family. Alanine aminotransferase subfamily.

Cellular localization:
Cytoplasm.

Applications

Our Abpromise guarantee covers the use of ab202083 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<td>WB</td>
<td>1/2000. Detects a band of approximately 55 kDa (predicted molecular weight: 55 kDa).</td>
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<tr>
<td>ICC/IF</td>
<td>1/100.</td>
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<td>Flow Cyt</td>
<td>1/70.</td>
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</table>

Target

Function:
Catalyzes the reversible transamination between alanine and 2-oxoglutarate to form pyruvate and glutamate. Participates in cellular nitrogen metabolism and also in liver gluconeogenesis starting with precursors transported from skeletal muscles.

Tissue specificity:
Liver, kidney, heart, and skeletal muscles. Expressed at moderate levels in the adipose tissue.

Pathway:
Amino-acid degradation; L-alanine degradation via transaminase pathway; pyruvate from L-alanine: step 1/1.

Sequence similarities:
Belongs to the class-I pyridoxal-phosphate-dependent aminotransferase family. Alanine aminotransferase subfamily.

Cellular localization:
Cytoplasm.

Images
**All lanes**: Anti-Alanine Transaminase antibody [EPR19616] (ab202083) at 1/2000 dilution

**Lane 1**: Human fetal liver lysate  
**Lane 2**: Human fetal kidney lysate  

Lysates/proteins at 10 µg per lane.

**Secondary**  
**All lanes**: Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/10000 dilution

**Predicted band size**: 55 kDa  
**Observed band size**: 55 kDa

**Exposure time**: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST..
**Western blot - Anti-Alanine Transaminase antibody [EPR19616] (ab202083)**

**All lanes**: Anti-Alanine Transaminase antibody [EPR19616] (ab202083) at 1/2000 dilution

**Lane 1**: Human skeletal muscle lysate
**Lane 2**: HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate
**Lane 3**: Mouse muscle lysate
**Lane 4**: Rat muscle lysate
**Lane 5**: Mouse liver lysate

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/10000 dilution

**Predicted band size**: 55 kDa
**Observed band size**: 55 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: Lane 1, 2, 3 and 4: 3 minutes; Lane 5: 4 seconds.
Western blot - Anti-Alanine Transaminase antibody [EPR19616] (ab202083)

All lanes: Anti-Alanine Transaminase antibody [EPR19616] (ab202083) at 1/2000 dilution

Lane 1: Mouse brain lysate
Lane 2: Mouse heart lysate
Lane 3: Rat brain lysate
Lane 4: Rat heart lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 55 kDa
Observed band size: 55 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: Lane 1 and 2: 3 minutes; Lane 3 and 4: 30 seconds.
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HepG2 (Human liver hepatocellular carcinoma cell line) cells labeling Alanine Transaminase with ab202083 at 1/100 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on HepG2 cells. The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody - Loading Control (ab7291) at 1/1000 dilution and Goat Anti-Mouse IgG (AlexaFluor®594 ) preadsorbed (ab150120) at 1/1000 dilution (red).

The negative controls are as follows:
-ve control 1: ab202083 at 1/100 dilution followed by ab150120 at 1/1000 dilution.
-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 at 1/1000 dilution.
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HT-29 (Human colorectal adenocarcinoma cell line) cells labeling Alanine Transaminase with ab202083 at 1/100 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on HT-29 cells. The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody - Loading Control (ab7291) at 1/1000 dilution and Goat Anti-Mouse IgG (AlexaFluor®594) preadsorbed (ab150120) at 1/1000 dilution (red).

The negative controls are as follows:
-ve control 1: ab202083 at 1/100 dilution followed by ab150120 at 1/1000 dilution.
-ve control 2: ab7291 at 1/1000 dilution followed by ab150077 at 1/1000 dilution.

Flow cytometric analysis of 4% paraformaldehyde-fixed HepG2 (Human liver hepatocellular carcinoma cell line) cells labeling Alanine Transaminase with ab202083 at 1/70 dilution (red) compared with a Rabbit IgG,monoclonal - Isotype control (ab172730) (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody (blue). Goat anti rabbit IgG (Alexa Fluor® 488) at 1/500 dilution was used as the secondary antibody.

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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