abcam

Product datasheet

Anti-PHGDH/Malate dehydrogenase antibody ab133133

2 Images

Overview

Product name	Anti-PHGDH/Malate dehydrogenase antibody
Description	Rabbit polyclonal to PHGDH/Malate dehydrogenase
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, WB
Species reactivity	**Reacts with:** Human **Predicted to work with:** Horse, Pig, Chimpanzee, Gorilla
Immunogen	Synthetic peptide corresponding to Human PHGDH/Malate dehydrogenase aa 500 to the C-terminus (C terminal) conjugated to keyhole limpet haemocyanin. (Peptide available as **ab156055**)
Positive control	This antibody gave a positive signal in the following whole cell lysates: HeLa; Jurkat; A431; Raji; MCF7. IF/ICC: MCF7 cell line.
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. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our

scientific support team who will be happy to help.

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab133133 in the following tested applications.

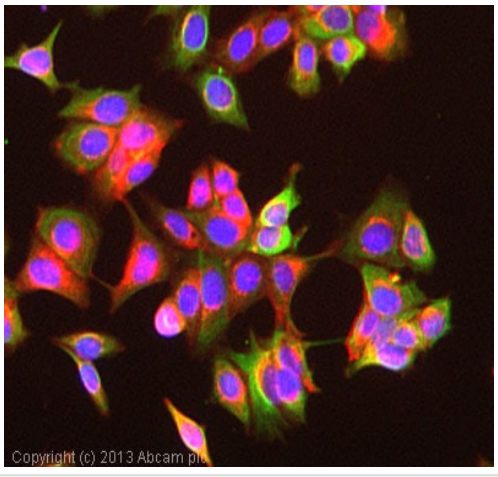
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 10 µg/ml.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 56 kDa (predicted molecular weight: 56 kDa).

Target

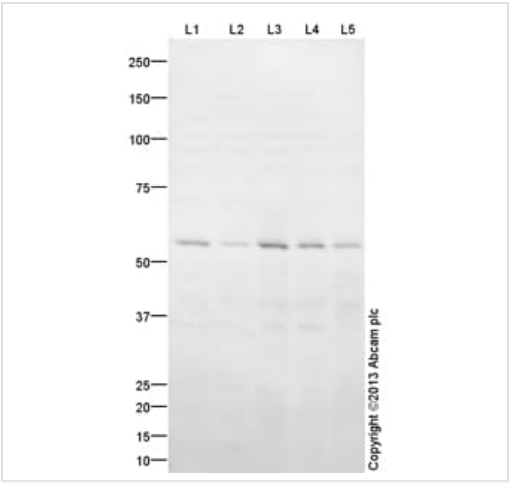
Pathway	Amino-acid biosynthesis; L-serine biosynthesis; L-serine from 3-phospho-D-glycerate: step 1/3.
Involvement in disease	Defects in PHGDH are the cause of phosphoglycerate dehydrogenase deficiency (PHGDH deficiency) [MIM:601815]. It is characterized by congenital microcephaly, psychomotor retardation, and seizures.
Sequence similarities	Belongs to the D-isomer specific 2-hydroxyacid dehydrogenase family.

Images



Immunocytochemistry/ Immunofluorescence - Anti-PHGDH/Malate dehydrogenase antibody (ab133133)

ICC/IF image of ab133133 stained MCF7 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab133133, 10µg/ml) overnight at +4°C. The secondary antibody (green) was **ab96899**, DyLight® 488 goat anti-rabbit IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM. This antibody also gave a positive result in 4% formaldehyde fixed (10 min) Hek293 and MCF7 cells at 10µg/ml.



Western blot - Anti-PHGDH/Malate dehydrogenase antibody (ab133133)

All lanes : Anti-PHGDH/Malate dehydrogenase antibody (ab133133) at 1 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 2 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate
Lane 3 : A431 (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 4 : Raji (Human Burkitt's lymphoma cell line) Whole Cell Lysate
Lane 5 : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 56 kDa

Exposure time: 5 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 5% Bovine Serum Albumin before being incubated with ab133133 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution.

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