abcam

Product datasheet

Anti-Glutaminase antibody ab131554

2 Images

Overview

Product name	Anti-Glutaminase antibody
Description	Rabbit polyclonal to Glutaminase
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, WB
Species reactivity	**Reacts with:** Mouse **Predicted to work with:** Rat, Rabbit, Human, Chimpanzee, Macaque monkey, Gorilla
Immunogen	Synthetic peptide corresponding to Human Glutaminase aa 600 to the C-terminus conjugated to keyhole limpet haemocyanin. (Peptide available as ab156175)
Positive control	This antibody gave a positive signal in both Mouse Cortex and Mouse Brain. This antibody gave a positive result when used in the following formaldehyde fixed cell lines: HepG2.

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: 0.01% Sodium azide Constituent: PBS Note: 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

Our Abpromise guarantee covers the use of **ab131554** in the following tested applications.

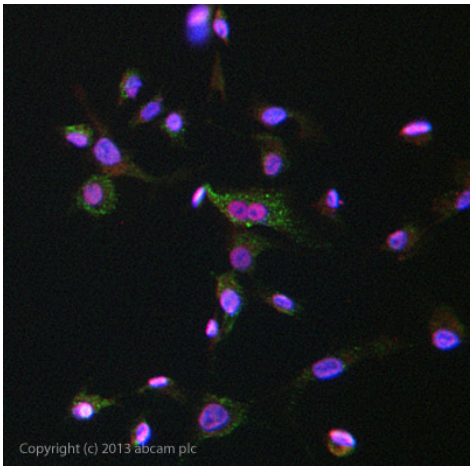
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 1 µg/ml.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 71 kDa (predicted molecular weight: 73 kDa).

Target

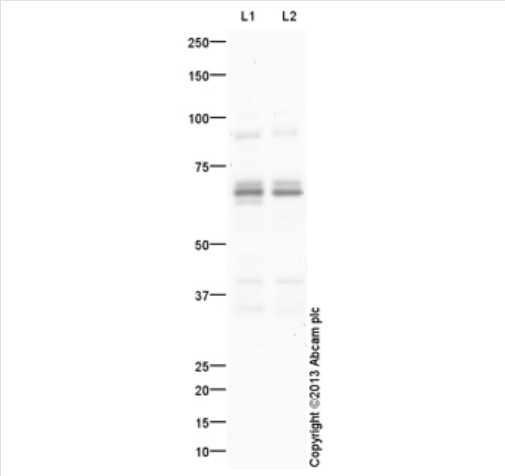
Function	Catalyzes the first reaction in the primary pathway for the renal catabolism of glutamine.
Tissue specificity	KGA is expressed predominantly in brain and kidney but not in liver, isoform 3 is expressed principally in cardiac muscle and pancreas but not in liver or brain, and isoform 2 is expressed solely in cardiac and skeletal muscle.
Sequence similarities	Belongs to the glutaminase family. Contains 1 ANK repeat.
Cellular localization	Mitochondrion.

Images



Immunocytochemistry/ Immunofluorescence - Anti-Glutaminase antibody (ab131554)

ICC/IF image of ab131554 stained HepG2 cells. The cells were 4% formaldehyde fixed (10 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 ab131554 at 1µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit (ab96899) 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.



Western blot - Anti-Glutaminase antibody (ab131554)

All lanes : Anti-Glutaminase antibody (ab131554) at 1 µg/ml

Lane 1 : Mouse Cortex Tissue Lysate
Lane 2 : Brain (Mouse) Tissue 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: 73 kDa
Observed band size: 71 kDa
why is the actual band size different from the predicted?
Additional bands at: 39 kDa, 92 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 90 seconds

The band observed at 71 kDa could potentially be a cleaved form of Glutaminase due to the presence of a 16 amino acid transit peptide. 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 ab131554 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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