

Product datasheet

Anti-GLO1 antibody [6F10] ab81461

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Overview

Product name	Anti-GLO1 antibody [6F10]
Description	Rat monoclonal [6F10] to GLO1
Host species	Rat
Tested applications	Suitable for: Flow Cyt (Intra), ICC/IF, WB
Species reactivity	Reacts with: Mouse, Human, African green monkey
Immunogen	Recombinant full length protein. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: COS-1, L929 and HeLa whole cell extracts. ICC/IF: Hela cells. HeLa cells : Flow Cyt (Intra).
General notes	

ab81461 also reacts with Simian.

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 repeated freeze / thaw cycles.
Storage buffer	pH: 6 Constituents: 50% Glycerol (glycerin, glycerine), PBS
Purification notes	The antibody was produced from the hybridoma cultured in serum free medium and purified under mild conditions by propriety chromatography processes. It is filter sterilized.
Primary antibody notes	ab81461 also reacts with Simian.
Clonality	Monoclonal
Clone number	6F10

Isotype	IgG2b
Light chain type	kappa

Applications

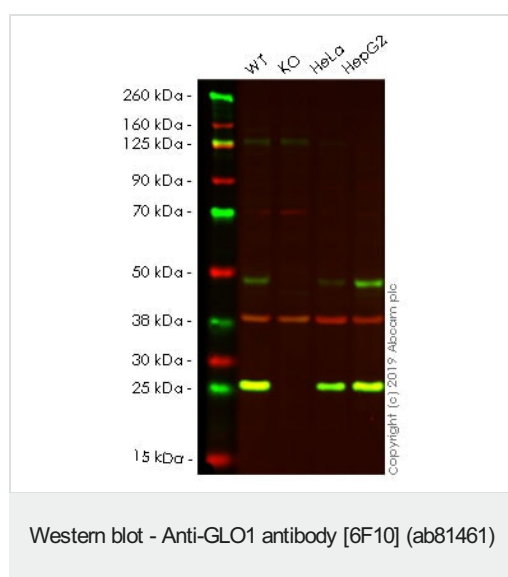
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab81461 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		Use 1µg for 10 ⁶ cells. ab18536 - Rat monoclonal IgG2b, is suitable for use as an isotype control with this antibody.
ICC/IF		Use at an assay dependent concentration.
WB		1/1000. Predicted molecular weight: 21 kDa.

Target

Function	Catalyzes the conversion of hemimercaptal, formed from methylglyoxal and glutathione, to S-lactoylglutathione.
Pathway	Secondary metabolite metabolism; methylglyoxal degradation; (R)-lactate from methylglyoxal: step 1/2.
Sequence similarities	Belongs to the glyoxalase I family.

Images



All lanes : Anti-GLO1 antibody [6F10] (ab81461) at 1/1000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate

Lane 2 : GLO1 knockout HAP1 whole cell lysate

Lane 3 : HeLa whole cell lysate

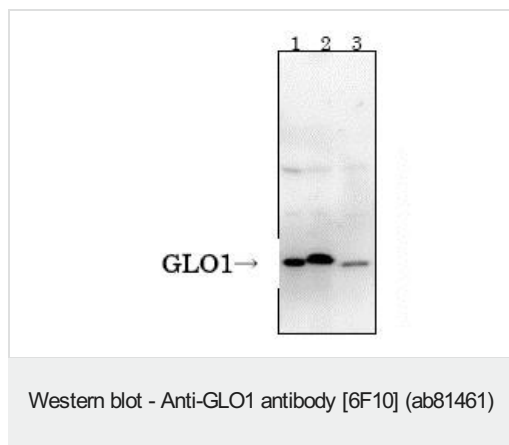
Lane 4 : HepG2 whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 21 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab81461 observed at 21 kDa. Red - loading control, **ab181602**, observed at 37 kDa.

ab81461 was shown to specifically react with in wild-type HAP1 cells as signal was lost in GLO1 knockout cells. Wild-type and GLO1 knockout samples were subjected to SDS-PAGE. The membrane was blocked with 3% Milk. Ab81461 and **ab181602** (Rabbit anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rat IgG H&L (IRDye® 800CW) preabsorbed and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed **ab216777** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



All lanes : Anti-GLO1 antibody [6F10] (ab81461)

Lane 1 : COS-1 (simian) whole cell extract

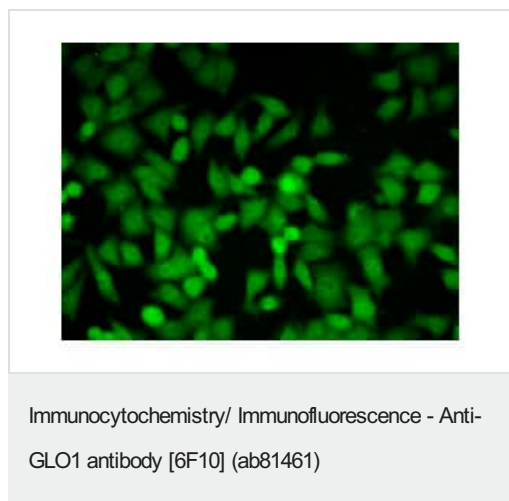
Lane 2 : L929 (mouse) whole cell extract

Lane 3 : HeLa (human) whole cell extract

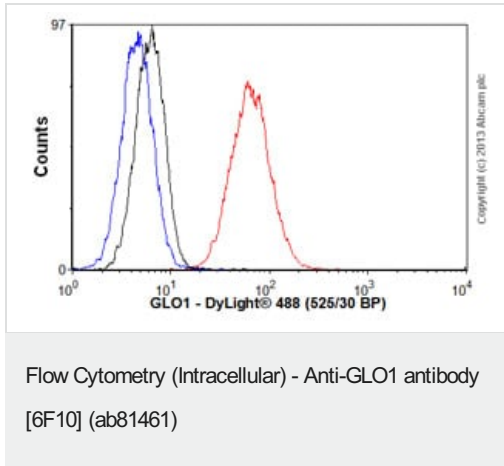
Predicted band size: 21 kDa

Observed band size: 27-29 kDa

Mouse GLO1 shows a single band of 27 kDa while human and simian ones show 29 kDa.



Immunofluorescent staining of HeLa cells with ab81461.



Overlay histogram showing HeLa cells stained with ab81461 (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 (ab81461, 1µg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rat IgG (H+L) (**ab98386**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rat IgG2b [RTK4530] (**ab18541**, 1µg/1x10⁶ cells) used under the same conditions. Unlabelled sample (blue line). Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

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