

Product datasheet

Anti-Glucose 6 phosphate isomerase antibody [1B7D7] ab66340

★★★★☆ 6 Abreviews 4 References 4 Images

Overview

Product name	Anti-Glucose 6 phosphate isomerase antibody [1B7D7]
Description	Mouse monoclonal [1B7D7] to Glucose 6 phosphate isomerase
Host species	Mouse
Tested applications	Suitable for: ICC/IF, IHC-P, WB, ELISA, IP, Flow Cyt
Species reactivity	Reacts with: Mouse, Human
Immunogen	Recombinant GST-tagged fragment (Human)
General notes	This product was changed from ascites to supernatant. Lot no's high than GR185888-22 are from Tissue Culture Supernatant

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.05% Sodium azide Constituent: PBS
Purity	Protein G purified
Purification notes	Purified from tissue culture supernatant.
Clonality	Monoclonal
Clone number	1B7D7
Isotype	IgG1

Applications

Our [Abpromise guarantee](#) covers the use of **ab66340** in the following tested applications.

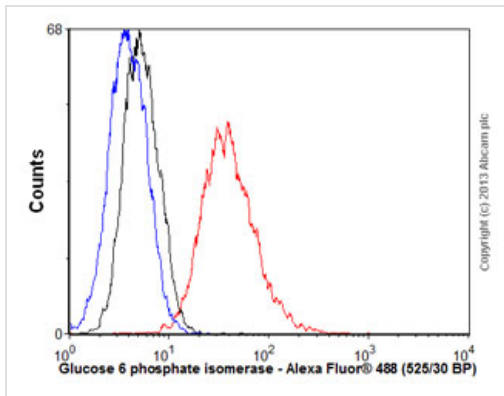
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	★★★★☆	1/200 - 1/1000.
IHC-P	★★★★☆	Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB	★★★★☆	1/500 - 1/5000. Predicted molecular weight: 63 kDa.
ELISA	★★★★☆	1/10000.
IP	★★★★☆	Use at an assay dependent concentration. recommended dilution: 10 ul/mg lysate
Flow Cyt		1/100. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

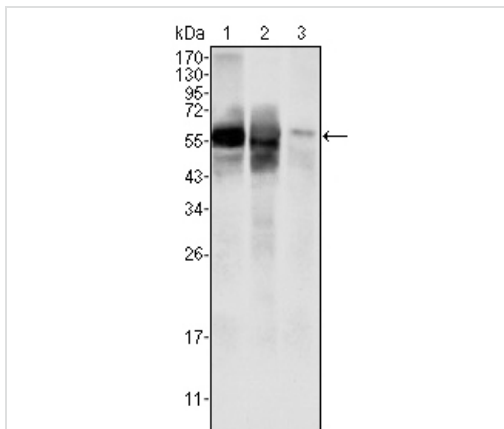
Function	Besides it's role as a glycolytic enzyme, mammalian GPI can function as a tumor-secreted cytokine and an angiogenic factor (AMF) that stimulates endothelial cell motility. GPI is also a neurotrophic factor (Neuroleukin) for spinal and sensory neurons.
Pathway	Carbohydrate degradation; glycolysis; D-glyceraldehyde 3-phosphate and glycerone phosphate from D-glucose: step 2/4.
Involvement in disease	Defects in GPI are the cause of hemolytic anemia non-spherocytic due to glucose phosphate isomerase deficiency (HA-GPID) [MIM:613470]. It is a form of anemia in which there is no abnormal hemoglobin or spherocytosis. It is caused by glucose phosphate isomerase deficiency. Severe GPI deficiency can be associated with hydrops fetalis, immediate neonatal death and neurological impairment.
Sequence similarities	Belongs to the GPI family.
Post-translational modifications	Phosphorylation at Ser-185 by CK2 has been shown to decrease enzymatic activity and may contribute to secretion by a non-classical secretory pathway. ISGylated.
Cellular localization	Cytoplasm. Secreted.

Images



Flow Cytometry - Anti-Glucose 6 phosphate isomerase antibody [1B7D7] (ab66340)

Overlay histogram showing HepG2 cells stained with ab66340 (red line). The cells were fixed with 4% paraformaldehyde (10 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 (ab66340, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H+L) (ab150113) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 1µg/1x10⁶ cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in HepG2 cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Western blot - Anti-Glucose 6 phosphate isomerase antibody [1B7D7] (ab66340)

All lanes : Anti-Glucose 6 phosphate isomerase antibody [1B7D7] (ab66340) at 1/2000 dilution

Lane 1 : Cell lysates prepared from HepG2 cells.

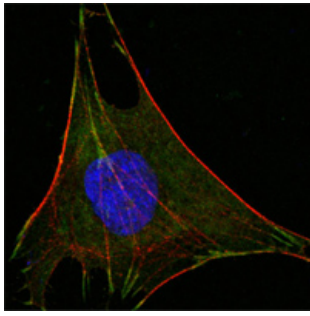
Lane 2 : Cell lysates prepared from SMMC-7721 cells.

Lysates/proteins at 100 µg per lane.

Secondary

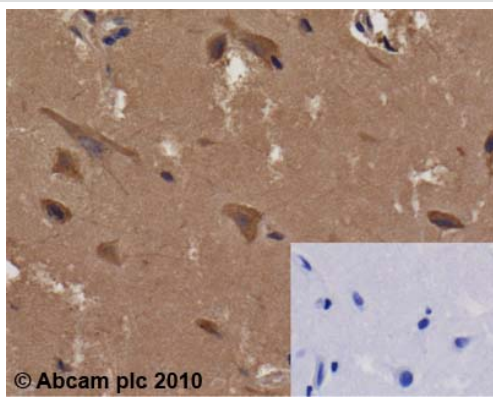
All lanes : HRP-conjugated Goat polyclonal to mouse IgG1

Predicted band size: 63 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Glucose 6 phosphate isomerase antibody [1B7D7] (ab66340)

ab66340 at 1000 dilution staining Glucose 6 phosphate isomerase in L-02 cells by Immunocytochemistry/ Immunofluorescence. An Alexa Fluor[®] 488 conjugated Goat polyclonal to mouse IgG1 was used as secondary antibody. Green staining in image show positive staining with ab66340, actin filaments were stained red with DY-554 phalloidin and nuclei stained blue with DRAQ5 fluorescent DNA dye.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glucose 6 phosphate isomerase antibody [1B7D7] (ab66340)

ab66340 (1µg/ml) staining Glucose 6 phosphate isomerase in human cerebral cortex using an automated system (DAKO Autostainer Plus). Using this protocol there is strong cytoplasmic staining of neurons and of the neuropil. Inset panel depicts negative control (no primary antibody). Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffer EDTA pH 9.0 in a DAKO PT link. Slides were peroxidase blocked in 3% H₂O₂ in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors