abcam

Product datasheet

Anti-Triosephosphate isomerase antibody ab58327

★★★★★ 2 Abreviews 3 Images

Overview

Product name	Anti-Triosephosphate isomerase antibody
Description	Mouse monoclonal to Triosephosphate isomerase
Host species	Mouse
Tested applications	**Suitable for:** WB, ICC/IF, Flow Cyt
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant full length protein, corresponding to amino acids 1-250 of Human Triosephosphate isomerase

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: None PBS, pH 7.2
Purity	Protein G purified
Clonality	Monoclonal
Isotype	IgG1
Light chain type	kappa

Applications

Our Abpromise guarantee covers the use of **ab58327** 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
WB	★★★★★	Use a concentration of 1 - 5 µg/ml. Predicted molecular weight: 27 kDa.
ICC/IF		Use a concentration of 10 µg/ml.

Application	Abreviews	Notes
Flow Cyt		Use 0.1µg for 10^6 cells. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

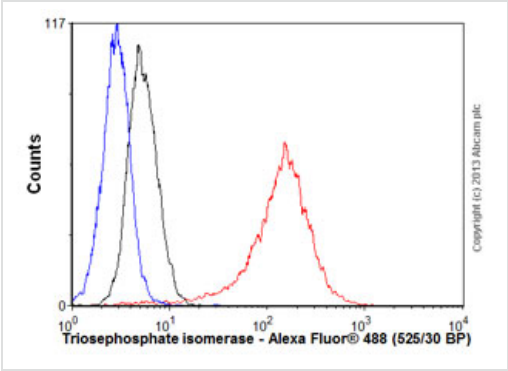
Relevance

Triosephosphate isomerase (TIM) catalyses the reversible interconversion of G3P and DHAP. Only G3P can be used in glycolysis, therefore TIM is essential for energy production, allowing two molecules of G3P to be produced for every glucose molecule, thereby doubling the energy yield. Defects in TPI1 are the cause of triosephosphate isomerase deficiency (TPI deficiency) [MIM:190450]. TPI deficiency is an autosomal recessive disorder. It is the most severe clinical disorder of glycolysis. It is associated with neonatal jaundice, chronic hemolytic anemia, progressive neuromuscular dysfunction, cardiomyopathy and increased susceptibility to infection.

Cellular localization

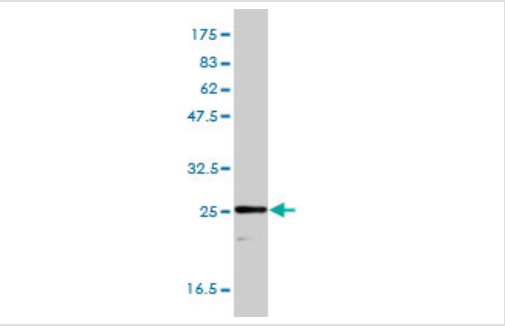
Cytoplasmic and Nuclear; extracellular vesicle exosome; extracellular space.

Images



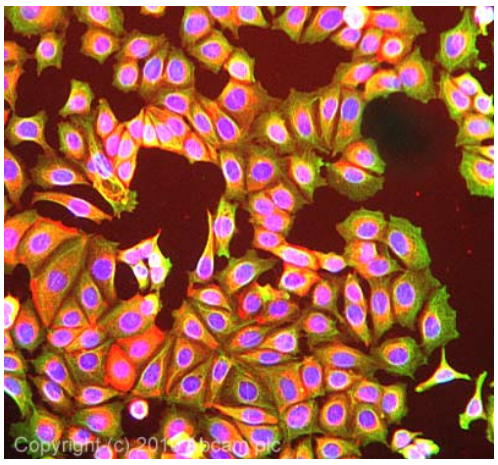
Flow Cytometry - Anti-Triosephosphate isomerase antibody (ab58327)

Overlay histogram showing Jurkat cells stained with ab58327 (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 (ab58327, 0.1µg/1x10^6 cells) 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/1x10^6 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 Jurkat cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Western blot - Anti-Triosephosphate isomerase antibody (ab58327)

Triosephosphate isomerase antibody (ab58327) at 1ug/lane + HepG2 cell lysate at 25ug/lane.



Immunocytochemistry/ Immunofluorescence - Anti-Triosephosphate isomerase antibody (ab58327)

ICC/IF image of ab58327 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 (ab58327, 10µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse IgG (H+L) used at a 1/1000 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.

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