

## Product datasheet

# Anti-Glucose 6 Phosphate Dehydrogenase antibody [EPR6292] $\alpha$ b133525

Recombinant RabMAb

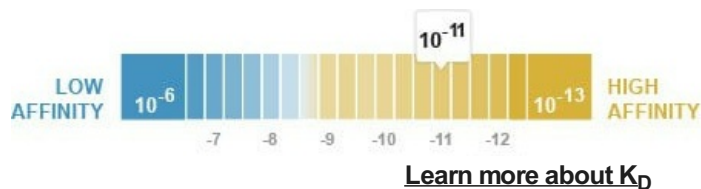
★★★★★ [1 Abreviews](#) [15 References](#) [5 Images](#)

### Overview

<b>Product name</b>	Anti-Glucose 6 Phosphate Dehydrogenase antibody [EPR6292]
<b>Description</b>	Rabbit monoclonal [EPR6292] to Glucose 6 Phosphate Dehydrogenase
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), WB, IHC-P <b>Unsuitable for:</b> IP
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: Molt 4, A549, MCF7, HeLa, and HepG2 cell lysates. IHC-P: Human testis tissue. Flow Cyt (intra): A549 cells
<b>General notes</b>	<p>Cellular localisation: centrosome, cytosol, internal side of plasma membrane, intracellular membrane bounded organelle. There are 3 isoforms produced by alternative splicing.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
<b>Dissociation constant (K<sub>D</sub>)</b>	K <sub>D</sub> = 4.30 x 10 <sup>-11</sup> M



<b>Storage buffer</b>	pH: 7.2 Preservative: 0.05% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR6292
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab133525 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

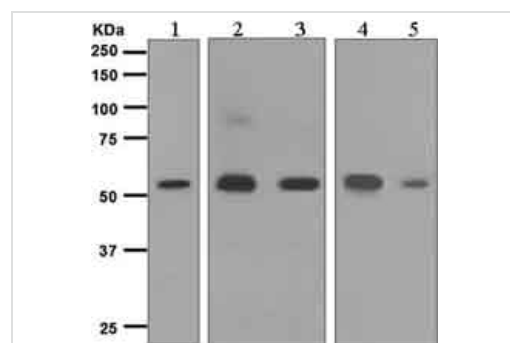
Application	Abreviews	Notes
<b>Flow Cyt (Intra)</b>		1/1000. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
<b>WB</b>		1/1000 - 1/10000. Detects a band of approximately 58 kDa (predicted molecular weight: 59 kDa).
<b>IHC-P</b>		1/50 - 1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

**Application notes** Is unsuitable for IP.

## Target

<b>Function</b>	Catalyzes the rate-limiting step of the oxidative pentose-phosphate pathway, which represents a route for the dissimilation of carbohydrates besides glycolysis. The main function of this enzyme is to provide reducing power (NADPH) and pentose phosphates for fatty acid and nucleic acid synthesis.
<b>Tissue specificity</b>	Isoform Long is found in lymphoblasts, granulocytes and sperm.
<b>Pathway</b>	Carbohydrate degradation; pentose phosphate pathway; D-ribulose 5-phosphate from D-glucose 6-phosphate (oxidative stage): step 1/3.
<b>Involvement in disease</b>	Anemia, non-spherocytic hemolytic, due to G6PD deficiency
<b>Sequence similarities</b>	Belongs to the glucose-6-phosphate dehydrogenase family.
<b>Post-translational modifications</b>	Acetylated by ELP3 at Lys-403; acetylation inhibits its homodimerization and enzyme activity. Deacetylated by SIRT2 at Lys-403; deacetylation stimulates its enzyme activity.

## Images



Western blot - Anti-Glucose 6 Phosphate Dehydrogenase antibody [EPR6292] (ab133525)

**All lanes :** Anti-Glucose 6 Phosphate Dehydrogenase antibody [EPR6292] (ab133525) at 1/1000 dilution

**Lane 1 :** Molt 4 cell lysate

**Lane 2 :** A549 cell lysate

**Lane 3 :** MCF7 cell lysate

**Lane 4 :** HeLa cell lysate

**Lane 5 :** HepG2 cell lysate

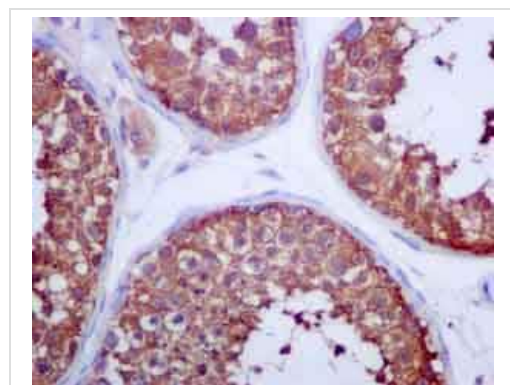
Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes :** Goat anti-rabbit at 1/2000 dilution

**Predicted band size:** 59 kDa

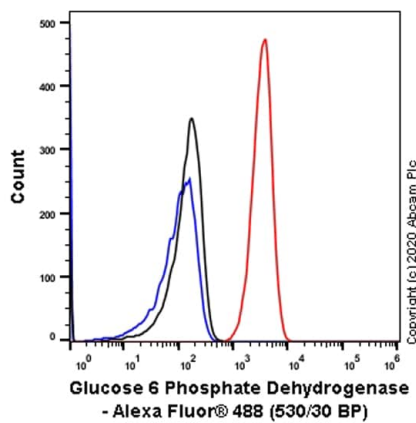
**Observed band size:** 58 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glucose 6 Phosphate Dehydrogenase antibody [EPR6292] (ab133525)

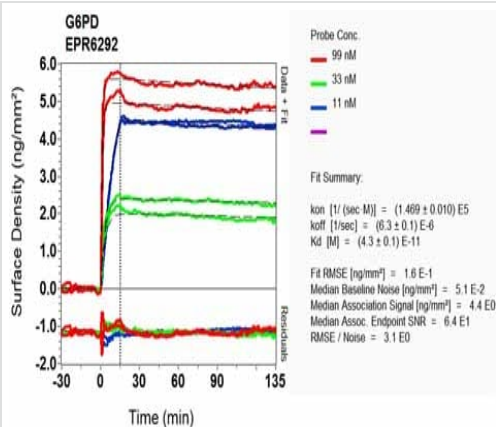
Immunohistochemistry analysis of Paraffin Embedded Human testis tissue labelling Glucose 6 Phosphate Dehydrogenase with ab133525 at 1/50.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Glucose 6 Phosphate Dehydrogenase antibody [EPR6292] (ab133525)

Flow Cytometry analysis of A549 (Human lung carcinoma epithelial cell) cells labeling Glucose 6 Phosphate Dehydrogenase with purified ab133525 at 1/1000 dilution (1 µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



OI-RD Scanning - Anti-Glucose 6 Phosphate Dehydrogenase antibody [EPR6292] (ab133525)

Equilibrium dissociation constant ( $K_D$ )

Learn more about  $K_D$

[Click here to learn more about  \$K\_D\$](#)

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-Glucose 6 Phosphate Dehydrogenase antibody  
[EPR6292] (ab133525)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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