


## Product datasheet

# Anti-Glucose 6 Phosphate Dehydrogenase antibody ab76598

★★★★★ [8 Abreviews](#) [7 References](#) [3 Images](#)

### Overview

<b>Product name</b>	Anti-Glucose 6 Phosphate Dehydrogenase antibody
<b>Description</b>	Rabbit polyclonal to Glucose 6 Phosphate Dehydrogenase
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, IHC-P, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human <b>Predicted to work with:</b> Rat, Sheep, Cow, Chimpanzee, Baboon, Chinese hamster 
<b>Immunogen</b>	Synthetic peptide corresponding to Human Glucose 6 Phosphate Dehydrogenase aa 50-150. (Peptide available as <a href="#">ab87367</a> )
<b>Positive control</b>	Recombinant human Glucose 6 Phosphate Dehydrogenase protein ( <a href="#">ab126671</a> ) can be used as a positive control in WB. This antibody gave a positive signal in RAW 264.7 and Jurkat whole cell lysates, and in human placenta and lymph node tissue lysates. IHC-P: Hodgkin's lymphoma
<b>General notes</b>	<p>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.</p> <p>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&amp;As</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 or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS
<p>Batches of this product that have a concentration &lt; 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</p>	

scientific support team who will be happy to help.

<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab76598 in the following tested applications.

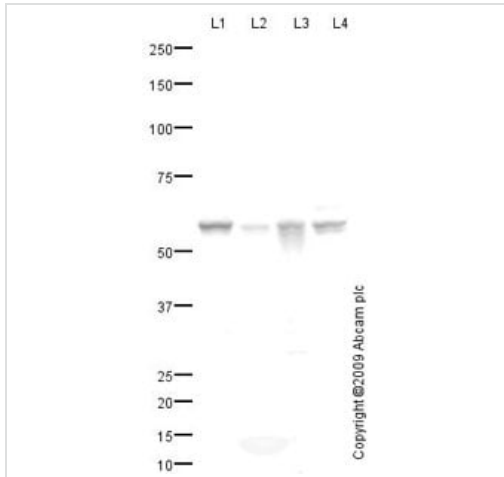
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	★★★★★ (1)	Use a concentration of 1 µg/ml.
IHC-P	★★★★★ (1)	Use a concentration of 0.2 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB	★★★★★ (5)	Use a concentration of 1 µg/ml. Detects a band of approximately 59 kDa (predicted molecular weight: 59 kDa).

## 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 (ab76598)

**All lanes :** Anti-Glucose 6 Phosphate Dehydrogenase antibody (ab76598) at 1 µg/ml

**Lane 1 :** RAW 264.7 (Mouse leukaemic monocyte macrophage cell line) Whole Cell Lysate

**Lane 2 :** Human placenta tissue lysate - total protein ([ab29745](#))

**Lane 3 :** Human lymph node tissue lysate - total protein ([ab29871](#))

**Lane 4 :** Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes :** Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

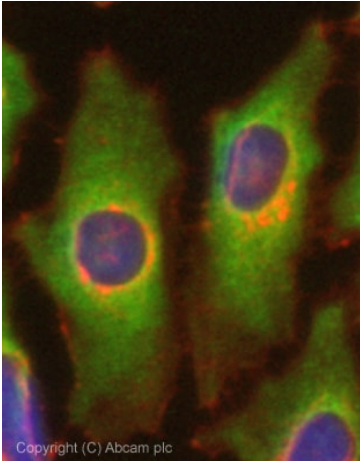
Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 59 kDa

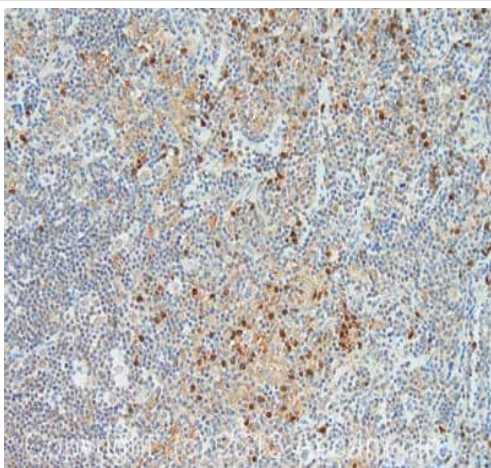
**Observed band size:** 59 kDa

**Exposure time:** 30 seconds



Immunocytochemistry/ Immunofluorescence - Anti-Glucose 6 Phosphate Dehydrogenase antibody (ab76598)

ICC/IF image of ab76598 stained HeLa 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 (ab76598, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit 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. This antibody also gave a positive result in 100% methanol fixed (5 min) Hek293, HepG2 and MCF7 cells at 1µg/ml.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glucose 6 Phosphate Dehydrogenase antibody (ab76598)

IHC image of Glucose 6 Phosphate staining in human Hodgkin's Lymphoma formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab76598, 0.2µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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

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