abcam

Product datasheet

Anti-Glucose 6 Phosphate Dehydrogenase antibody ab226964

4 Images

Overview

Product name	Anti-Glucose 6 Phosphate Dehydrogenase antibody
Description	Rabbit polyclonal to Glucose 6 Phosphate Dehydrogenase
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Sheep, Rabbit, Cow, Rhesus monkey
Immunogen	Recombinant fragment within Human Glucose 6 Phosphate Dehydrogenase (internal sequence). The exact sequence is proprietary. Database link: **P11413**
Positive control	WB: Neuro2a, PC-12, Rat2, HeLa S3, C8D30, NIH/3T3, RAW 264.7 and C1C12 whole cell extracts. IHC-P: U87 xenograft tissue.
General notes	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. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.00 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 1.21% Tris, 0.75% Glycine, 10% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab226964 in the following tested applications.

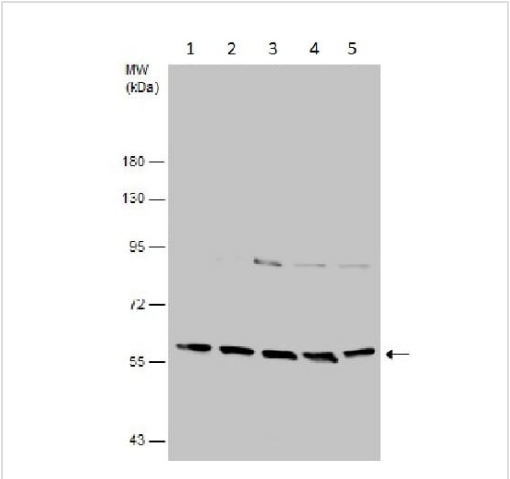
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/3000. Predicted molecular weight: 59 kDa.
IHC-P		1/100 - 1/1000.

Target

Function	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.
Tissue specificity	Isoform Long is found in lymphoblasts, granulocytes and sperm.
Pathway	Carbohydrate degradation; pentose phosphate pathway; D-ribulose 5-phosphate from D-glucose 6-phosphate (oxidative stage): step 1/3.
Involvement in disease	Anemia, non-spherocytic hemolytic, due to G6PD deficiency
Sequence similarities	Belongs to the glucose-6-phosphate dehydrogenase family.
Post-translational modifications	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 (ab226964)

All lanes : Anti-Glucose 6 Phosphate Dehydrogenase antibody (ab226964) at 1/500 dilution

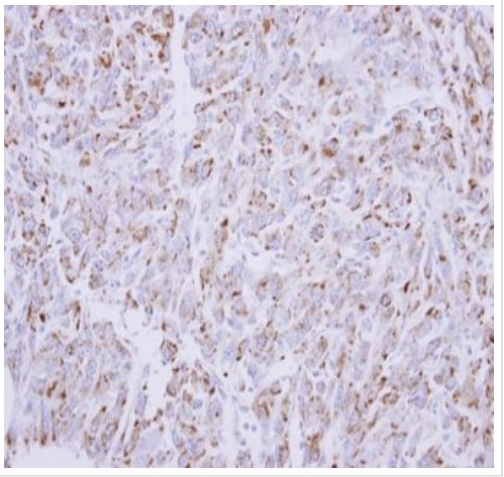
Lane 1 : Neuro-2a (mouse neuroblastoma cell line) whole cell extracts
Lane 2 : C8D30 whole cell extracts
Lane 3 : NIH/3T3 (mouse embryo fibroblast cell line) whole cell extracts
Lane 4 : RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell extracts
Lane 5 : C2C12 (mouse myoblast cell line) whole cell extracts

Lysates/proteins at 30 µg per lane.

Developed using the ECL technique.

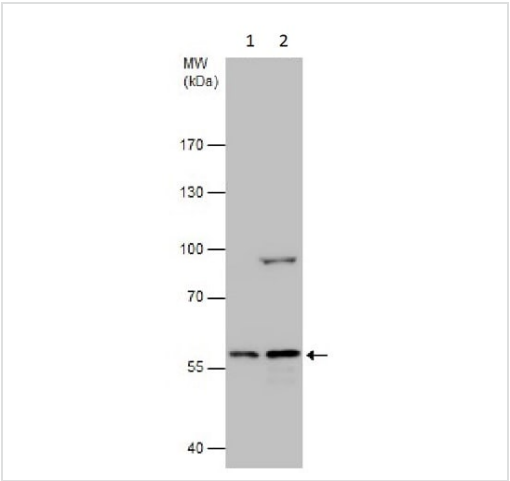
Predicted band size: 59 kDa

7.5% SDS-PAGE



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glucose 6 Phosphate Dehydrogenase antibody (ab226964)

Paraffin-embedded U87 xenograft tissue stained for Glucose 6 Phosphate Dehydrogenase with ab226964 (1/300 dilution) in immunohistochemical analysis.



Western blot - Anti-Glucose 6 Phosphate Dehydrogenase antibody (ab226964)

All lanes : Anti-Glucose 6 Phosphate Dehydrogenase antibody (ab226964) at 1/500 dilution

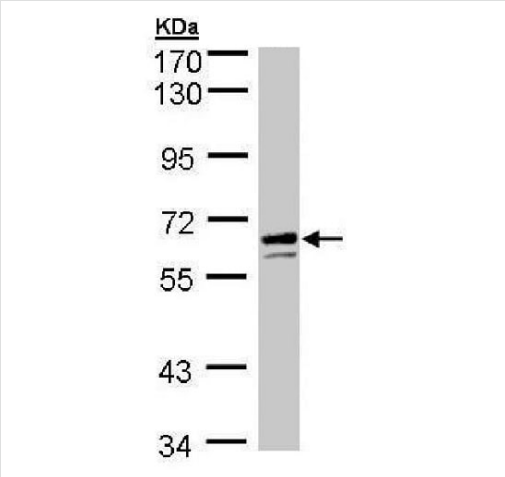
Lane 1 : PC-12 (rat adrenal gland pheochromocytoma cell line) whole cell extracts
Lane 2 : Rat2 (rat fibroblast cell line) whole cell extracts

Lysates/proteins at 30 µg per lane.

Developed using the ECL technique.

Predicted band size: 59 kDa

7.5% SDS-PAGE



Western blot - Anti-Glucose 6 Phosphate Dehydrogenase antibody (ab226964)

Anti-Glucose 6 Phosphate Dehydrogenase antibody (ab226964) at 1/500 dilution + HeLa S3 (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 30 µg

Developed using the ECL technique.

Predicted band size: 59 kDa

7.5% SDS PAGE

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

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