

Anti-Glucose 6 Phosphate Dehydrogenase/G6PD Antibody Picoband™

Catalog Number: PB9198

About G6PD

Glucose-6-phosphate dehydrogenase, also known as G6PD or G6PDH, is an enzyme that in humans is encoded by the G6PD gene. It is mapped to Xq28. G6PD plays a key role in the production of ribose 5-phosphate and the generation of NADPH in the hexose monophosphate pathway. Because this pathway is the only NADPH-generation process in mature red cells, which lack the citric acid cycle, a genetic deficiency of G6PD is often associated with adverse physiologic effects. It has been found that aldosterone decreased G6PD expression and activity, resulting in increased oxidant stress and decreased nitric oxide levels, similar to what is observed in G6PD-deficient endothelial cells.

Overview

Product Name	Anti-Glucose 6 Phosphate Dehydrogenase/G6PD Antibody Picoband™
Reactive Species	Human, Mouse
Description	Boster Bio Anti-Glucose 6 Phosphate Dehydrogenase/G6PD Antibody Picoband™ catalog # PB9198. Tested in WB applications. This antibody reacts with Human;Mouse.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.01mg NaN ₃ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P11413

Technical Details

Immunogen	E.coli-derived human G6PD recombinant protein (Position: E315-L515). Human G6PD shares 95% and 96% amino acid (aa) sequences identity with mouse and rat G6PD, respectively.
Predicted Reactive Species	Human
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human, Mouse

Anti-Glucose 6 Phosphate Dehydrogenase/G6PD Antibody Picoband™ (PB9198) Images

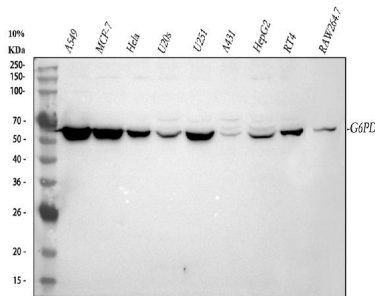


Figure 1. Western blot analysis of G6PD using anti-G6PD antibody (PB9198).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human A549 whole cell lysates,
Lane 2: human MCF-7 whole cell lysates,
Lane 3: human HeLa whole cell lysates,
Lane 4: human U2OS whole cell lysates,
Lane 5: human U251 whole cell lysates,
Lane 6: human A431 whole cell lysates,
Lane 7: human HepG2 whole cell lysates,
Lane 8: human RT4 whole cell lysates,
Lane 9: mouse RAW264.7 whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-G6PD antigen affinity purified polyclonal antibody (Catalog # PB9198) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for G6PD at approximately 59 kDa. The expected band size for G6PD is at 59 kDa.

1 Publications Citing This Product

1. PubMed ID: 23693134, Hu T, Zhang C, Tang Q, Su Y, Li B, Chen L, Zhang Z, Cai T, Zhu Y. BMC Cancer. 2013 May 22;13:251. Doi: 10.1186/1471-2407-13-251. Variant G6PD Levels Promote Tumor Cell Proliferation Or Apoptosis Via The Stat3/5 Pathway In The Human Melanoma Xenogr...

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