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Anti-G6PD Picoband Antibody

Catalog # ABO11889

Product Information

Application	WB
Primary Accession	P11413
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Glucose-6-phosphate 1-dehydrogenase(G6PD) detection. Tested with WB in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	2539
Other Names	Glucose-6-phosphate 1-dehydrogenase, G6PD, 1.1.1.49, G6PD
Calculated MW	59257
Application Details	Western blot, 0.1-0.5 □g/ml, Human
Tissue Specificity	Isoform Long is found in lymphoblasts, granulocytes and sperm.
Source	Eukaryota
Protein Name	Glucose-6-phosphate 1-dehydrogenase
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the glucose-6-phosphate dehydrogenase family.

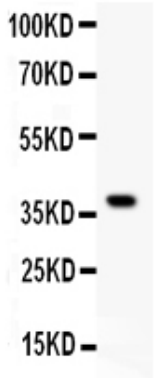
Protein Information

Name	G6PD
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. Also catalyzes the conversion of NAADPH, which is produced by enzymes such as DUOX1, DUOX2 and NOX5 from NAADP and promotes Ca(2+) signaling during T cell activation, back to NAADP (PubMed:34784249).
Cellular Location	Cytoplasm, cytosol. Membrane; Peripheral membrane protein
Tissue Location	Isoform Long is found in lymphoblasts, granulocytes and sperm

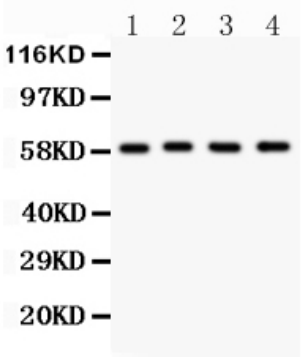
Background

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 adid 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.

Images



Anti- G6PD antibody, ABO11889, Western blottingAll lanes: Anti G6PD (ABO11889) at 0.5ug/mlWB: Recombinant Human G6PD Protein 0.5ngPredicted bind size: 39KDObserved bind size: 39KD



Anti- G6PD antibody, ABO11889, Western blottingAll lanes: Anti G6PD (ABO11889) at 0.5ug/mlLane 1: HELA Whole Cell Lysate at 40ugLane 2: MCF-7 Whole Cell Lysate at 40ugLane 3: SKOV Whole Cell Lysate at 40ugLane 4: HEPG2 Whole Cell Lysate at 40ugPredicted bind size: 59KDObserved bind size: 59KD