

# G6PD Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO1637a

## Product Information

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<b>Application</b>	WB, IHC, FC, E
<b>Primary Accession</b>	<a href="#">P11413</a>
<b>Reactivity</b>	Human
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone Names</b>	2H7
<b>Isotype</b>	IgG1
<b>Calculated MW</b>	59257
<b>Description</b>	This gene encodes glucose-6-phosphate dehydrogenase. This protein is a cytosolic enzyme encoded by a housekeeping X-linked gene whose main function is to produce NADPH, a key electron donor in the defense against oxidizing agents and in reductive biosynthetic reactions. G6PD is remarkable for its genetic diversity. Many variants of G6PD, mostly produced from missense mutations, have been described with wide ranging levels of enzyme activity and associated clinical symptoms. G6PD deficiency may cause neonatal jaundice, acute hemolysis, or severe chronic non-spherocytic hemolytic anemia. Two transcript variants encoding different isoforms have been found for this gene.
<b>Immunogen</b>	Purified recombinant fragment of human G6PD expressed in E. Coli.
<b>Formulation</b>	Ascitic fluid containing 0.03% sodium azide.

## Additional Information

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<b>Gene ID</b>	2539
<b>Other Names</b>	Glucose-6-phosphate 1-dehydrogenase, G6PD, 1.1.1.49, G6PD
<b>Dilution</b>	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 E~~1/10000
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	G6PD Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	G6PD
<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>Cellular Location</b>	Cytoplasm, cytosol. Membrane; Peripheral membrane protein
<b>Tissue Location</b>	Isoform Long is found in lymphoblasts, granulocytes and sperm

## References

1. Science. 2009 Dec 11;326(5959):1546-9. 2. Immunol Invest. 2009;38(6):551-9.

## Images

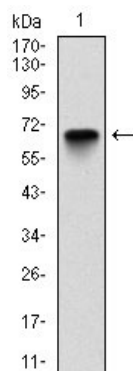


Figure 1: Western blot analysis using G6PD mAb against human G6PD (AA: 275-515) recombinant protein. (Expected MW is 53.1 kDa)

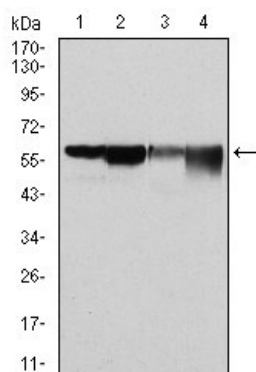


Figure 2: Western blot analysis using G6PD mouse mAb against Hela (1), MCF-7 (2), Jurkat (3) and K562 (4) cell lysate.

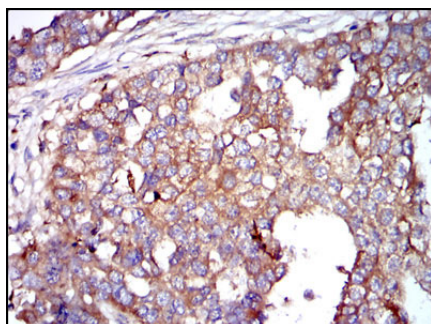


Figure 3: Immunohistochemical analysis of paraffin-embedded breast cancer tissues using G6PD mouse mAb with DAB staining.

Figure 4: Immunohistochemical analysis of paraffin-embedded kidney cancer tissues using G6PD mouse mAb with DAB staining.

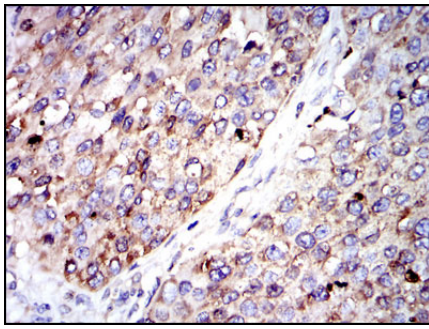
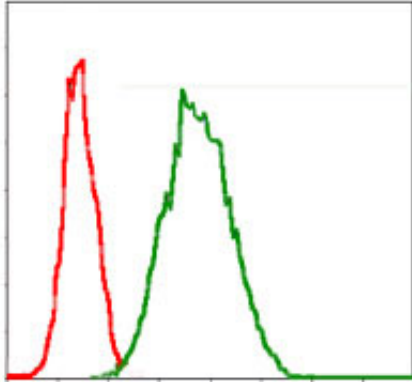


Figure 5: Flow cytometric analysis of Jurkat cells using G6PD mouse mAb (green) and negative control (red).



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