

**G6PD Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1637a**

**Specification**

**G6PD Antibody - Product Information**

Application	<b>E, WB, IHC, FC</b>
Primary Accession	<a href="#">P11413</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG1</b>
Calculated MW	<b>59kDa KDa</b>

**Description**

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.

**Immunogen**

Purified recombinant fragment of human G6PD expressed in E. Coli. <br />

**Formulation**

Ascitic fluid containing 0.03% sodium azide.

**G6PD Antibody - Additional Information**

**Gene ID** 2539

**Other Names**

Glucose-6-phosphate 1-dehydrogenase, G6PD, 1.1.1.49, G6PD

**Dilution**

E~~1/10000  
WB~~1/500 - 1/2000  
IHC~~1/200 - 1/1000  
FC~~1/200 - 1/400

**Storage**

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.

**Precautions**

G6PD Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## G6PD Antibody - 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.

### Cellular Location

Cytoplasm, cytosol. Membrane; Peripheral membrane protein

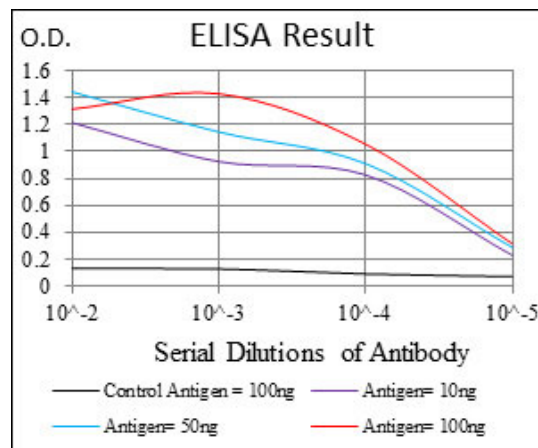
### Tissue Location

Isoform Long is found in lymphoblasts, granulocytes and sperm

## G6PD Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)



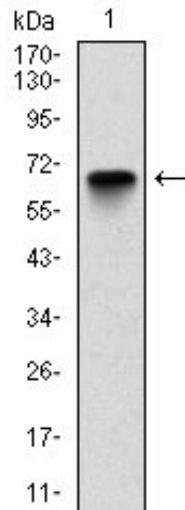


Figure 1: Western blot analysis using G6PD mAb against human G6PD (AA: 275-515) recombinant protein. (Expected MW is 53.1 kDa)

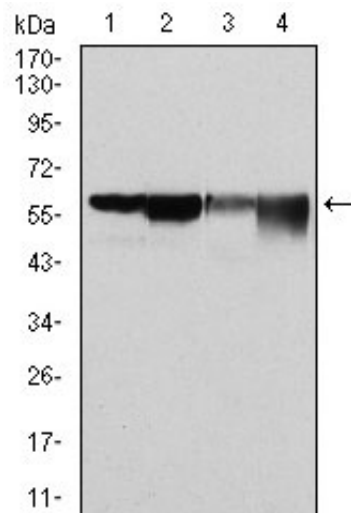


Figure 2: Western blot analysis using G6PD mouse mAb against Hela (1), MCF-7 (2), Jurkat (3) and K562 (4) cell lysate.

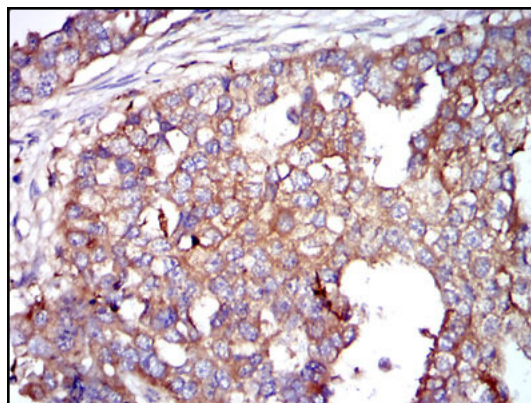


Figure 3: Immunohistochemical analysis of paraffin-embedded breast cancer tissues using G6PD mouse mAb with DAB staining.

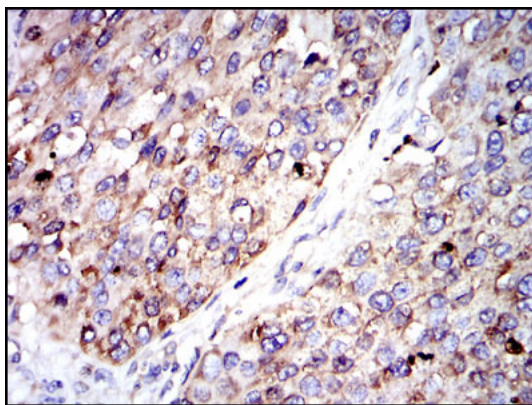


Figure 4: Immunohistochemical analysis of paraffin-embedded kidney cancer tissues using G6PD mouse mAb with DAB staining.

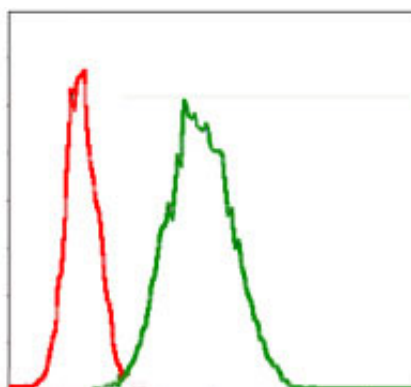


Figure 5: Flow cytometric analysis of Jurkat cells using G6PD mouse mAb (green) and negative control (red).

#### G6PD Antibody - References

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