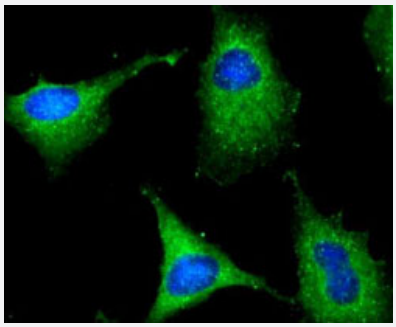
G6PD monoclonal antibody, clone AT2F6

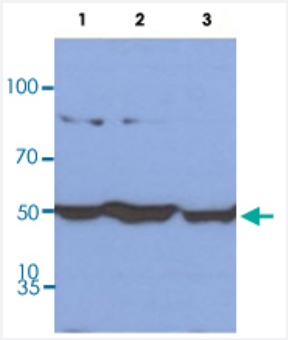
Catalog # MAB6597 Size 100 uL

Applications



Immunofluorescence

Immunofluorescence analysis of HeLa cells. The cell was stained with G6PD monoclonal antibody, clone AT2F6 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).



Western Blot (Cell lysate)

Western blot analysis of Lane 1: MCF7 cell lysate, Lane 2: HeLa cell lysate, Lane 3: Jurkat cell lysate.

Specification

Product Description	Mouse monoclonal antibody raised aganist partial recombinant G6PD.
Immunogen	Recombinant protein corresponding to amino acids 35-506 of human G6PD.
Host	Mouse
Reactivity	Human
Form	Liquid
Purification	Protein G purification
Isotype	IgG2b, kappa

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Recommend Usage	ELISA Flow Cytometry Immunohistochemistry Immunocytochemistry Immunofluorescence Western Blot The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS, pH 7.4 (10% glycerol, 0.02% sodium azide).
Storage Instruction	Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

Applications

- Immunofluorescence

  Immunofluorescence analysis of HeLa cells. The cell was stained with G6PD monoclonal antibody, clone AT2F6 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

- Immunocytochemistry

- Enzyme-linked Immunoabsorbent Assay

- Western Blot (Cell lysate)

  Western blot analysis of Lane 1: MCF7 cell lysate, Lane 2: HeLa cell lysate, Lane 3: Jurkat cell lysate.

Gene Info — G6PD

Entrez GeneID	2539
Protein Accession#	NP_001035810.1
Gene Name	G6PD
Gene Alias	G6PD1
Gene Description	glucose-6-phosphate dehydrogenase
Omim ID	305900
Gene Ontology	Hyperlink

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Gene Summary	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. [provided by RefSeq
Other Designations	OTTHUMP00000026034|glucose-6-phosphate 1-dehydrogenase|glucose-6-phosphate dehydrogenase, G6PD

Publication Reference

- Purification and detailed study of two clinically different human glucose 6-phosphate dehydrogenase variants, G6PD(Plymouth) and G6PD(Mahidol): Evidence for defective protein folding as the basis of disease.

  Huang Y, Choi MY, Au SW, Au DM, Lam VM, Engel PC.

  Molecular Genetics and Metabolism 2008 Jan; 93(1):44.

  Application: WB, Bacteria, E. coli DF 213 cells

- [Glucose-6-phosphate dehydrogenase (G6PD) deficiency--a cause of anaemia in pregnant women] [Article in Polish].

  Kuliszkiewicz-Janus M, Zimny A.

  Pol Arch Med Wewn 2003 Nov; 110(5):1327.

Pathway

- Biosynthesis of alkaloids derived from histidine and purine
- Biosynthesis of plant hormones
- Glutathione metabolism
- Metabolic pathways
- Pentose phosphate pathway

Disease

- alpha-Thalassemia

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- Anemia
- beta-Thalassemia
- Birth Weight
- Cardiovascular Diseases
- Coronary Disease
- Diabetes Mellitus
- Diabetic Ketoacidosis
- Disease Susceptibility
- Edema
- Elliptocytosis
- Encephalitis
- Favism
- Genetic Predisposition to Disease
- Gilbert Disease
- Glucosephosphate Dehydrogenase Deficiency
- Glycogen Storage Disease Type I
- Hemoglobinuria
- Hemolysis
- Hyperbilirubinemia
- Jaundice
- Lymphoma
- Malaria
- Metabolism
- Parasitemia
- Sickle Cell Trait
- Stroke

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- Syndrome
- Thalassemia
- Wounds and Injuries

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