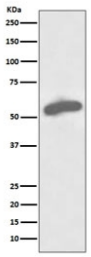
G6PD Antibody / Glucose-6-Phosphate Dehydrogenase Antibody [clone ABBI-7] (RQ5365)

Catalog No.	Formulation	Size
RQ5365	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-2 weeks
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	ABBI-7
Purity	Affinity purified
UniProt	P11413
Applications	Western blot: 1:500-1:2000
Limitations	This G6PD Antibody / Glucose-6-Phosphate Dehydrogenase Antibody is available for research use only.



G6PD Antibody Human MCF-7 WB. Western blot analysis of human MCF-7 cell lysate using recombinant rabbit monoclonal G6PD Antibody, clone ABBI-7. A single band is detected at approximately 59 kDa, consistent with the predicted molecular weight of endogenous glucose-6-phosphate dehydrogenase. These results demonstrate specific detection of G6PD in human breast cancer cells and support the use of G6PD Antibody, clone ABBI-7, for investigating glucose-6-phosphate dehydrogenase expression, cellular metabolism and redox homeostasis.

Description

G6PD Antibody / Glucose-6-Phosphate Dehydrogenase Antibody recognizes glucose-6-phosphate dehydrogenase (G6PD), the first and rate-limiting enzyme of the pentose phosphate pathway. G6PD catalyzes the conversion of glucose-6-phosphate to 6-phosphogluconolactone while generating nicotinamide adenine dinucleotide phosphate (NADPH), an essential reducing cofactor required for antioxidant defense, lipid biosynthesis and numerous anabolic

processes. Because of its central role in cellular metabolism, G6PD has become an important target in studies of redox biology, metabolic regulation and disease. NSJ Bioreagents offers G6PD Antibody, clone ABBI-7, a recombinant rabbit monoclonal antibody for investigating endogenous G6PD expression.

G6PD activity is critical for maintaining intracellular redox balance by supplying NADPH for glutathione regeneration and other antioxidant systems. This function is especially important in red blood cells, which depend almost entirely on the pentose phosphate pathway to protect against oxidative damage. In addition to its role in normal physiology, G6PD contributes to metabolic adaptation in rapidly proliferating cells, where increased NADPH production supports biosynthesis and resistance to oxidative stress. G6PD Antibody, clone ABBI-7, is well suited for examining G6PD expression in cultured cells and tissue samples across a variety of research applications.

Inherited G6PD deficiency is one of the most common enzyme deficiencies worldwide and can result in hemolytic anemia following oxidative stress induced by infection, medications or certain foods. Conversely, elevated G6PD expression has been reported in many solid tumors and hematologic malignancies, where enhanced pentose phosphate pathway activity promotes tumor growth, metabolic reprogramming and therapeutic resistance. Ongoing research continues to investigate G6PD as both a biomarker and a potential therapeutic target in cancer, metabolic disorders and inflammatory disease. Researchers frequently use G6PD Antibody to study these diverse biological processes.

A G6PD Antibody is a valuable reagent for investigating glucose metabolism, NADPH generation and oxidative stress responses. A Glucose-6-Phosphate Dehydrogenase Antibody supports studies of metabolic regulation, inherited enzyme deficiency, cancer metabolism and cellular redox homeostasis.

For an overview of G6PD biology and its role as the rate-limiting enzyme of the pentose phosphate pathway, including NADPH production and cellular redox regulation, visit our G6PD Antibody / Pentose Phosphate Pathway Enzyme Antibody page.

Application Notes

Optimal dilution of the G6PD Antibody / Glucose-6-Phosphate Dehydrogenase Antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to human Glucose 6 Phosphate Dehydrogenase / G6PD was used as the immunogen for the G6PD antibody.

Storage

Store the G6PD antibody at -20oC.

Alternate Names

G6PD antibody, Glucose-6-Phosphate Dehydrogenase antibody, G6PDH antibody, EC 1.1.1.49 antibody

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