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G6PD Antibody

Store at -20C
#8866

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 58	Source/Isotype: Rabbit	UniProt ID: #P11413	Entrez-Gene Id: 2539
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Product Usage Information	Application Western Blotting	Dilution 1:1000
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.	
Specificity/Sensitivity	G6PD Antibody recognizes endogenous levels of total glucose-6-phosphate dehydrogenase protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human glucose-6-phosphate dehydrogenase protein. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	Glucose-6-phosphate dehydrogenase (G6PD) catalyses the first, and rate-limiting, step of the pentose phosphate pathway (1). The NADPH generated from this reaction is essential to protect cells from oxidative stress (1). Research studies have shown that p53 interacts with G6PD and inhibits its activity, therefore suppressing glucose consumption through the pentose phosphate pathway (2). In cancer cells with p53 mutations, the increased glucose consumption is directed towards increased biosynthesis, which is critical for cancer cell proliferation (2).	
Background References	<ol style="list-style-type: none"> 1. Au, S.W. et al. (2000) <i>Structure</i> 8, 293-303. 2. Jiang, P. et al. (2011) <i>Nat Cell Biol</i> 13, 310-6. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.
Applications Key	W: Western Blotting
Cross-Reactivity Key	H: Human M: Mouse R: Rat Mk: Monkey
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