

Store at
-20C
#12263**G6PD (D5D2) Rabbit mAb**

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Hm Mk	Endogenous	58	Rabbit IgG	#P11413	2539

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, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

G6PD (D5D2) Rabbit mAb recognizes endogenous levels of total G6PD protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human G6PD protein.

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

1. Au, S.W. et al. (2000) *Structure* 8, 293-303.
2. Jiang, P. et al. (2011) *Nat Cell Biol* 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 **Hm:** Hamster **Mk:** Monkey

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