

**IDH2 (D7H6Q) Rabbit mAb**

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

<b>Applications:</b> W, IP	<b>Reactivity:</b> H M R Mk	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 50	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P48735	<b>Entrez-Gene Id:</b> 3418
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**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation

**Dilution**

1:1000  
1:50

**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**

IDH2 (D7H6Q) Rabbit mAb recognizes endogenous levels of total IDH2 protein. This antibody also recognizes overexpressed IDH1 protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human IDH2 protein.

**Background**

IDH2 is one of three isocitrate dehydrogenases (IDH1-3) that catalyze the oxidative decarboxylation of isocitrate to produce CO<sub>2</sub> and α-ketoglutarate (α-KG). These enzymes belong to two distinct subclasses that utilize either NAD or NADP<sup>+</sup> as an electron acceptor. IDH2 is an NADP<sup>+</sup>-dependent isocitrate dehydrogenase expressed primarily in the mitochondria, where it also functions in the TCA cycle (1,2). Mutations in IDH2 or its cytoplasmic counterpart (IDH1) have been reported in glioblastoma multiforme (3), acute myeloid leukemia (4,5), and other malignancies (6). Research studies have shown that gain-of-function mutations in IDH2 can lead to the accumulation and secretion of the oncometabolite R-2-hydroxyglutarate (2HG) in cancer cells (6,7).

**Background References**

1. Wise, D.R. et al. (2011) *Proc Natl Acad Sci U S A* 108, 19611-6.
2. Filipp, F.V. et al. (2012) *Pigment Cell Melanoma Res* 25, 375-83.
3. Parsons, D.W. et al. (2008) *Science* 321, 1807-12.
4. Abbas, S. et al. (2010) *Blood* 116, 2122-6.
5. Paschka, P. et al. (2010) *J Clin Oncol* 28, 3636-43.
6. Watanabe, T. et al. (2009) *Am J Pathol* 174, 1149-53.
7. Pardanani, A. et al. (2010) *Leukemia* 24, 1370-2.

**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 **IP:** Immunoprecipitation

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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