#12652 Store at -20°C

IDH2 (D7H6Q) Rabbit mAb

☑ 100 µl
(10 western blots)

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Entrez-Gene ID #3448
Swiss-Prot Acc. #P48735

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, M, R, Mk	50 kDa	Rabbit IgG**

Background: IDH2 is one of three isocitrate dehydrogenases that catalyze the oxidative decarboxylation of isocitrate to produce CO_2 and α-ketoglutarate (α-KG). IDH2 and IDH1 are the $NADP^+$-dependent family members. IDH2 is a mitochodrial enzyme that also functions in the TCA cycle (1,2). Somatic mutations of IDH1 and IDH2 were initially identified in glioblastoma (3). More research studies have identified IDH1 and IDH2 mutations in acute myeloid leukemia and other malignancies at lower frequency (4,5). Mutations of IDH1 and IDH2 confer a gain of function, enzymatic acitivity that results in the accumulation and secretion of the oncometabolite R-2-hydroxyglutarate (2HG) in cancer cells (6,7).

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 References:

(1) Wise, D.R. et al. (2011) *Proc. Natl. Acad. Sci. U.S.A.* 108, 19611–19616.

(2) Filipp, F.V. et al. (2012) *Pigment Cell Melanoma Res.* 25, 375–383.

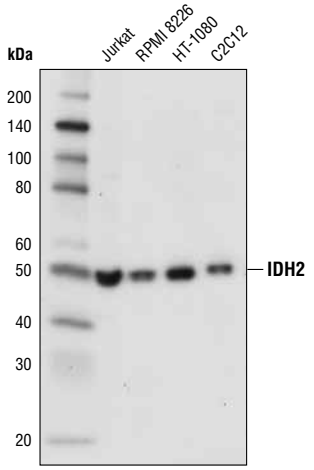
(3) Parsons, D.W. et al. (2008) *Science* 321, 1807–1812.

(4) Abbas, S. et al. (2010) *Blood* 116, 2122–2126.

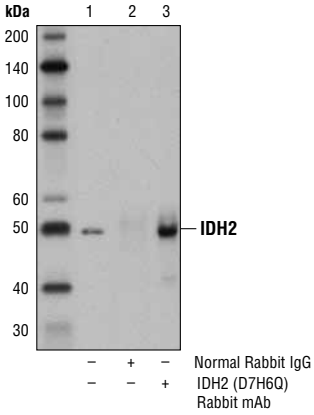
(5) Paschka, P. et al. (2010) *J. Clin. Oncol.* 28, 3636–3643.

(6) Watanabe, T. et al. (2009) *Am. J. Pathol.* 174, 1149–1153.

(7) Pardanani, A. et al. (2010) *Leukemia* 24, 1370–1372.



Western blot analysis of extracts from various cell lines using IDH2 (D7H6Q) Rabbit mAb.



Immunoprecipitation of IDH2 from Hep G2 cell extracts using Normal Rabbit IgG #2729 (lane 2) or IDH2 (D7H6Q) Rabbit mAb (lane 3). Lane 1 is 10% input. Western blot analysis was performed using IDH2 (D7H6Q) Rabbit mAb and Mouse Anti-rabbit IgG (Conformation Specific) (L27A9) mAb #3678.

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.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.