

Store at
-20°C
#56439**IDH2 (D8E3B) Rabbit mAb**

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IHC-P	H M R	Endogenous	43	Rabbit IgG	#P48735	3418

Product Usage Information**Application**

Western Blotting
Immunoprecipitation
Immunohistochemistry (Paraffin)

Dilution

1:1000
1:50
1:400 - 1:1600

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.

For a carrier free (BSA and azide free) version of this product see product #35740.

Specificity/Sensitivity

IDH2 (D8E3B) Rabbit mAb recognizes endogenous levels of total IDH2 protein. This antibody does not cross-react with IDH1 protein. Species cross-reactivity for IHC-P is human only.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val195 of human IDH2 protein.

Background

IDH2 is one of three isocitrate dehydrogenases (IDH1-3) that catalyze the oxidative decarboxylation of isocitrate to produce CO₂ and α-ketoglutarate (α-KG). These enzymes belong to two distinct subclasses that utilize either NAD or NADP⁺ as an electron acceptor. IDH2 is an NADP⁺-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 **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

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

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