Revision 3

Store at -20C

#60322

IDH2 (KrMab-3) Mouse mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IHC-P, IF-IC, FC-FP	H M R Mk	Endogenous	43	Mouse IgG2b	#P48735	3418

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50
Immunohistochemistry (Paraffin)	1:50 - 1:200
Immunofluorescence (Immunocytochemistry)	1:50
Flow Cytometry (Fixed/Permeabilized)	1:50 - 1:200

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 (KrMab-3) Mouse mAb recognizes endogenous levels of total IDH2 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala174 of human IDH2 protein, as described by Kaneko et al. (2013) [8].

Background

IDH2 is one of three isocitrate dehydrogenases (IDH1-3) that catalyze the oxidative decarboxylation of isocitrate to produce CO_2 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.
8. Kaneko, M.K. et al. (2013) *Biochem Biophys Res Commun* 432, 40-5.

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) **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

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

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