

## Basic Information

<b>Product Name</b>	Anti-IDH2 Antibody (Clone#2H4)	
<b>Gene Name</b>	IDH2	
<b>Source</b>	Mouse	
<b>Clonality</b>	Monoclonal	
<b>Isotype</b>	IgG1	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	WB, IHC	
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	A synthetic peptide corresponding to a sequence at the C-terminus of human IDH2, identical to the related mouse and rat sequences.	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	protein G purified.	
<b>Observed MW</b>	45 kDa	
<b>Dilution Ratios</b>	Western blot (WB):	1:500-2000
	Immunohistochemistry in paraffin section IHC	1:50-400
	(Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

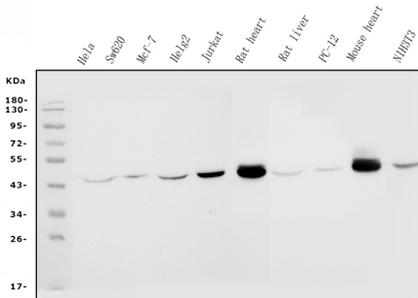
## Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

## Background Information

Isocitrate dehydrogenase [NADP], mitochondrial is an enzyme that in humans is encoded by the IDH2 gene. Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been reported: three NAD(+)-dependent isocitrate dehydrogenases, which localize to the mitochondrial matrix, and two NADP(+)-dependent isocitrate dehydrogenases, one of which is mitochondrial and the other predominantly cytosolic. Each NADP(+)-dependent isozyme is a homodimer. The protein encoded by this gene is the NADP(+)-dependent isocitrate dehydrogenase found in the mitochondria. It plays a role in intermediary metabolism and energy production. This protein may tightly associate or interact with the pyruvate dehydrogenase complex. Alternative splicing results in multiple transcript variants.

## Selected Validation Data



Western blot analysis of IDH2 using anti-IDH2 antibody (M00510-3).

The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HELA whole cell lysates,

Lane 2: human SW620 whole cell lysates,

Lane 3: human MCF-7 whole cell lysates,

Lane 4: human HEPG2 whole cell lysates,

Lane 5: human Jurkat whole cell lysates,

Lane 6: rat heart tissue lysates,

Lane 7: rat liver tissue lysates,

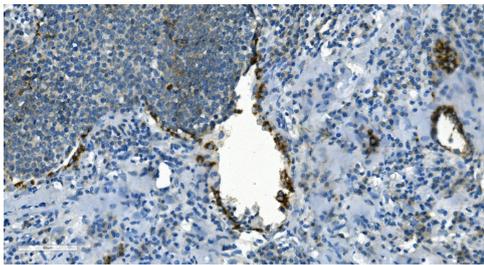
Lane 8: rat PC-12 whole cell lysates,

Lane 9: mouse heart tissue lysates,

Lane 10: mouse NIH/3T3 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with mouse anti-IDH2 antigen affinity purified monoclonal antibody (M00510-3) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for IDH2 at approximately 45 kDa. The expected band size for IDH2 is at 51 kDa.



IHC analysis of IDH2 using anti-IDH2 antibody (M00510-3).

IDH2 was detected in a paraffin-embedded section of human lung cancer tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody. The tissue section was incubated with mouse anti-IDH2 Antibody (M00510-3) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB (Catalog # AR1027) as the chromogen.