

AP31099PU-N**Polyclonal Antibody to IDH1 - Aff - Purified**

Alternate names:	Isocitrate dehydrogenase [NAD] subunit 1, Isocitric dehydrogenase, NAD(+)-specific ICDH, YNL037C, mitochondrial
Quantity:	0.1 mg
Concentration:	0.5 mg/ml
Background:	<p>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. IDH1 is the NADP(+)-dependent isocitrate dehydrogenase found in the cytoplasm and peroxisomes.</p> <p>IDH1 contains the PTS-1 peroxisomal targeting signal sequence. The presence of this enzyme in peroxisomes suggests roles in the regeneration of NADPH for intraperoxisomal reductions, such as the conversion of 2, 4-dienoyl-CoAs to 3-enoyl-CoAs, as well as in peroxisomal reactions that consume 2-oxoglutarate, namely the alpha-hydroxylation of phytanic acid. The cytoplasmic enzyme serves a significant role in cytoplasmic NADPH production.</p>
Uniprot ID:	P28834
NCBI:	NP_014361.1
GeneID:	855691
Host:	Goat
Immunogen:	Peptide with sequence from the Internal region of the protein sequence according to NP_014361.1. Genename: IDH1 AA Sequence: C-EPGSRHVGLDIKQGN
Format:	State: Liquid purified Ig fraction Purification: Ammonium Sulphate Precipitation followed by Antigen Affinity Chromatography using the immunizing peptide Buffer System: Tris saline, pH~7.3 Preservatives: 0.02% Sodium Azide Stabilizers: 0.5% BSA
Applications:	Peptide ELISA: Detection Limit: 1/16000. Western Blot: 0.3-1 µg/ml. A band of ~38kDa is observed in wildtype lysates of <i>S. cerevisiae</i> (Data kindly provided by F. Reggiori, University Medical Centre Utrecht, Netherlands).

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

Recognizes IDH1 (Yeast).

Species Reactivity:

Tested: *S.cerevisiae*

Expected from sequence similarity: *Saccharomyces cerevisiae* S288c

Add. Information:

Calculated Molecular Weight: 39.3kDa (NP_014361.1).

Storage:

Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

Pictures:

AP31099PU-N IDH1 antibody staining of *S. cerevisiae* lysate at 0.5 µg/ml (35µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

