

Product datasheet for **AP31099PU-N**

IDH1 Goat Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, WB
Recommended Dilution:	Peptide ELISA: Detection Limit: 1/16000. Western Blot: 0.3-1 µg/ml. A band of ~38kDa is observed in wildtype lysates of <i>cerevisiae</i> (Data kindly provided by F. Reggiori, University Medical Centre Utrecht, Netherlands).
Reactivity:	Yeast
Host:	Goat
Clonality:	Polyclonal
Immunogen:	Peptide with sequence from the Internal region of the protein sequence according to NP_014361.1.
Specificity:	Recognizes IDH1 (Yeast).
Formulation:	Tris saline, pH~7.3 State: Aff - Purified State: Liquid purified Ig fraction Stabilizer: 0.5% BSA Preservative: 0.02% Sodium Azide
Concentration:	lot specific
Purification:	Ammonium Sulphate Precipitation followed by Antigen Affinity Chromatography using the immunizing peptide
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Database Link:	P28834



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Background:

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.

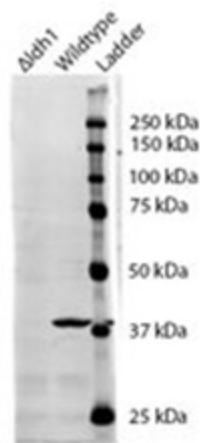
IDH1 contains the PTS-1 peroxisomal targeting signal sequence. The presence of this enzyme in peroxisomes suggests roles in the regeneration of NADPH for intraperoxisomal reductions, such as the conversion of 2, 4-dienoyl-CoAs to 3-enoyl-CoAs, as well as in peroxisomal reactions that consume 2-oxoglutarate, namely the alpha-hydroxylation of phytanic acid. The cytoplasmic enzyme serves a significant role in cytoplasmic NADPH production.

Synonyms:

Isocitric dehydrogenase, YNL037C

Note:

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

Product images:

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