



# Rabbit Anti-Human IDH1 Polyclonal Antibody (CPBT-37966RM)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

Immunogen	A synthetic peptide of human IDH1
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human, Mouse
Purification	Affinity purification
Conjugate	Unconjugated
Applications	WB, IHC, IF, FC
Positive Control	HepG2
Format	Liquid
Size	50 μΙ, 100 μΙ
Buffer	PBS with 0.02% sodium azide, pH7.3.
Preservative	0.02% Sodium Azide
Storage	Store at 4°C. Avoid freeze / thaw cycles.

### **BACKGROUND**

**Introduction** 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

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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 cytoplasm and peroxisomes. It 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. Alternatively spliced transcript variants encoding the same protein have been found for this gene.

#### **Keywords**

IDH1; isocitrate dehydrogenase 1 (NADP+), soluble; IDH; IDP; IDCD; IDPC; PICD; HEL-216; HEL-S-26; isocitrate dehydrogenase [NADP] cytoplasmic; NADP(+)-specific ICDH; oxalosuccinate decarboxylase; epididymis luminal protein 216; epididymis secretory protein Li 26; NADP-dependent isocitrate dehydrogenase, cytosolic; NADP-dependent isocitrate dehydrogenase, peroxisomal;

#### **GENE INFORMATION**

Entrez Gene ID	<u>3417</u>
UniProt ID	<u>075874</u>