



IDH1 blocking peptide (CDBP5541)

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

PRODUCT INFORMATION

Antigen Description	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 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. [provided by RefSeq, Sep 2013]
Conjugate	Unconjugated
Applications	Used as a blocking peptide in immunoblotting applications.
Format	Liquid
Concentration	200 µg/mL
Size	0.05 mg
Preservative	None
Storage	-20°C

GENE INFORMATION

Gene Name	IDH1 isocitrate dehydrogenase 1 (NADP+), soluble [Homo sapiens (human)]
Official Symbol	IDH1
Synonyms	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
Entrez Gene ID	3417
mRNA Refseq	NM_001282386
Protein Refseq	NP_001269315
UniProt ID	O75874
Pathway	2-Oxocarboxylic acid metabolism; Abnormal conversion of 2-oxoglutarate to 2-hydroxyglutarate; Biosynthesis of amino acids; Carbon metabolism; Citrate cycle (TCA cycle); Citrate cycle (TCA cycle); Citrate cycle; Disease
Function	NAD binding; NADP binding; isocitrate dehydrogenase (NADP+) activity; isocitrate dehydrogenase (NADP+) activity; magnesium ion binding; protein homodimerization activity; receptor binding
