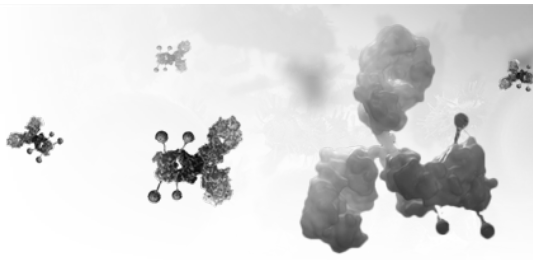

Anti-IDH1 (internal region) polyclonal antibody (DPAB-DC1661)

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.
Immunogen	A synthetic peptide corresponding to amino acids at internal region of human IDH1. The sequence is C-EITYTPSDGTQK
Source/Host	Goat
Species Reactivity	Human
Purification	Antigen affinity purification
Conjugate	Unconjugated
Applications	WB (Cell lysate), ELISA,
Format	Liquid

45-1 Ramsey Road, Shirley, NY 11967, USA
Email: info@creative-diagnostics.com
Tel: 1-631-624-4882 Fax: 1-631-938-8221

Concentration	0.5 mg/mL
Size	100 µg
Buffer	In 0.5 mg/mL in Tris saline, pH7.3 (0.5% BSA, 0.02% sodium azide)
Preservative	0.02% Sodium Azide
Storage	Store at -20°C.Aliquot to avoid repeated freezing and thawing.

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
Protein Refseq	NP_001269315
UniProt ID	O75874
Chromosome Location	2q33.3
Pathway	2-Oxocarboxylic acid metabolism; Abnormal conversion of 2-oxoglutarate to 2-hydroxyglutarate; Biosynthesis of amino acids; Carbon metabolism
Function	NAD binding; NADP binding; isocitrate dehydrogenase (NADP+) activity; magnesium ion binding

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