

Human IDH1 Knockdown Cell Lysate

Cat. No. IDH1-206HKCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	WB-validated IDH1 Knockdown HeLa Cell Lysate
Species	Human
Source	HeLa
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.
Form	Cell-Tissue Lysis buffer

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Molecular Mass	47 kDa
Notes	Instruction of use: This knockdown cell lysate should be paired with wild-type HeLa cell lysate for use. For Western blotting, we recommend running wild-type and knockdown lysates on the same gel, and loading each well with equal volume and equal amount of total proteins.
Storage	Store at -20 centigrade for two years.
Concentration	Lot-specific
Shipping	Blue Ice
Components	1 vial of 100 µg WT HeLa cell lysate 1 vial of 100 µg IDH1 KD HeLa cell lysate
Protein Pathways	Citrate cycle (TCA cycle), Glutathione metabolism, Metabolic pathways
Lysate QC	RT-qPCR; Western Blotting (WB)

GENE INFORMATION

Gene Name	IDH1 isocitrate dehydrogenase 1 (NADP+), soluble [Homo sapiens (human)]
Official Symbol	IDH1
Synonyms	IDH1; isocitrate dehydrogenase 1 (NADP+), soluble; isocitrate dehydrogenase [NADP] cytoplasmic; NADP(+)-specific ICDH; oxalosuccinate decarboxylase; NADP-dependent isocitrate dehydrogenase, cytosolic; NADP-dependent isocitrate dehydrogenase, peroxisomal; IDH; IDP; IDCD; IDPC; PICD;
Gene ID	3417

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

mRNA Refseq	NM_005896
Protein Refseq	NP_005887
MIM	147700
UniProt ID	O75874

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA