

## Recombin human IDH1protein

Catalog#: AC83994 Derived from E.coli

<b>DESCRIPTION</b>	Recombinant Human PNLIP protein is produced by our E.coli expression system with His tag. Uniprot: Q75874 Gene ID: 3417
<b>Size</b>	47 KDa
<b>FORMULATION</b>	Lyophilized from a 0.2 µm filtered solution of Urea, PBS, PH 8.0.
<b>SHIPPING</b>	The product is shipped at -20°C temperature. Upon receipt, store it immediately at the temperature listed below.
<b>STORAGE</b>	Reconstituted protein solution can be stored at 4-7°C for 2-3 months, stable at < -20°C for 1-2 years.
<b>RECONSTITUTION</b>	Reconstituted protein solution can be diluted with distilled PBS. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
<b>QUALITY CONTROL</b>	(Liquid)Concentration: 1 mg/mL as determined by BCA. Purity: 95% as determined by reducing SDS-PAGE.
<b>AMINOACID</b>	Recombinant protein is produced by our E.coli expression system and the target gene encoding 1-414aa is expressed with a 6*His tag at the N-terminus.
<b>BACKGROUND</b>	<p>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: the 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 the human 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-ketoglutarate-dependent hydroxylation of pantoic acid. The cytoplasmic enzyme serves a significant role in cytoplasmic NADPH production. Alternatively spliced transcript variants encoding the same protein have been found for the human gene.</p>

