ARG82035
Isocitrate Dehydrogenase Assay Kit

Package: 96 wells
Store at: 4°C, -20°C

Summary

Product Description	ARG82035 Isocitrate Dehydrogenase Assay Kit is a detection kit for the quantification of Isocitrate Dehydrogenase Activity in tissue extracts, cell lysate and cell culture supernatants.
Tested Reactivity	All
Tested Application	FuncSt
Target Name	Isocitrate Dehydrogenase
Conjugation Note	Read at 410 nm.
Sensitivity	0.2 mmol/l
Detection Range	0.2 - 20 mmol/l
Sample Type	Tissue extracts, cell lysate and cell culture supernatants.
Sample Volume	10 µl
Alternate Names	IDPC; EC 1.1.1.42; Cytosolic NADP-isocitrate dehydrogenase; IDP; HEL-S-26; HEL-216; Isocitrate dehydrogenase [NADP] cytoplasmic; IDH; PICD; IDCD; NADP; Oxalosuccinate decarboxylase

Application Instructions

Assay Time	40 min

Properties

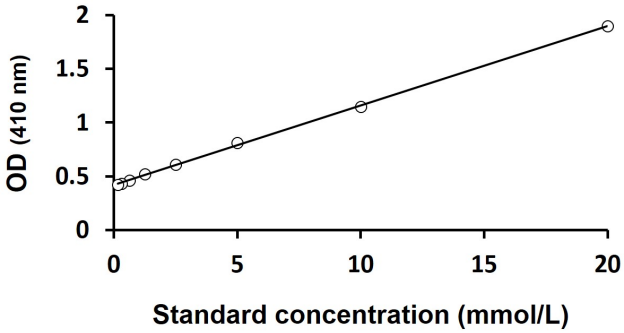
Form	96 well
Storage instruction	Store components at 4°C or -20°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	IDH1
Gene Full Name	isocitrate dehydrogenase 1 (NADP+), soluble
Background	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]
Highlight	Related products: Isocitrate Dehydrogenase antibodies; Isocitrate Dehydrogenase ELISA Kits; Related news: TCA intermediate fumarate promotes mitobiogenesis
PTM	Acetylation at Lys-374 dramatically reduces catalytic activity. [UniProt]
Cellular Localization	Cytoplasm. Peroxisome. [UniProt]

Images



ARG82035 Isocitrate Dehydrogenase Assay Kit typical data demonstration image

ARG82035 Isocitrate Dehydrogenase Assay Kit results of a typical data with optical density reading at 410 nm.