

Datasheet for ABIN2723839

Isocitrate Dehydrogenase Protein (IDH) (Myc-DYKDDDDK Tag)[Go to Product page](#)**2** Images

Overview

Quantity:	20 µg
Target:	Isocitrate Dehydrogenase (IDH)
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This Isocitrate Dehydrogenase protein is labelled with Myc-DYKDDDDK Tag.
Application:	Antibody Production (AbP), Standard (STD), Functional Studies (Func), Protein Interaction (PI)

Product Details

Specificity:	Optimal preservation of protein structure, post-translational modifications and functions.
Characteristics:	<ul style="list-style-type: none">• Recombinant human Isocitrate dehydrogenase / IDH protein expressed in HEK293 cells.• Produced with end-sequenced ORF clone• Tested for bioactivity.
Purity:	> 80 % as determined by SDS-PAGE and Coomassie blue staining
Biological Activity Comment:	Enzymatic activities were determined by monitoring NADPH formation based on the absorbance at 345nm. The reaction was carried out at 37° for 10 minutes in the presence of isocitrate as a substrate and NADP as a cofactor. The data which presented a good linear relation on the curve was used to calculate the specific activity, and one unit is defined as converting 1.0 umole of NADP to NADPH per min at 37°. In summary, the wildtype IDH1 produced from HEK293 cells and insect cells are active while the R132H mutant or the

Product Details

WT/R132H heterodimers are inactive.

Target Details

Target:	Isocitrate Dehydrogenase (IDH)
Alternative Name:	Isocitrate Dehydrogenase, idh (IDH Products)
Background:	<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: 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.</p>
Molecular Weight:	46.5 kDa
NCBI Accession:	NP_005887

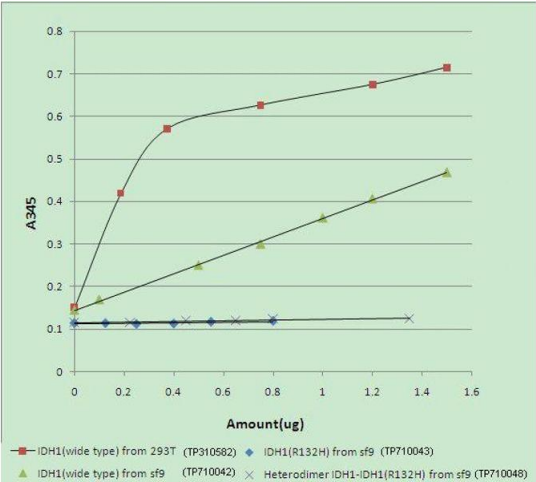
Application Details

Application Notes:	<p>Recombinant human proteins can be used for:</p> <ul style="list-style-type: none">Native antigens for optimized antibody productionPositive controls in ELISA and other antibody assaysProtein-protein interactionIn vitro biochemical assays and cell-based functional assays
Comment:	The tag is located at the C-terminal.
Restrictions:	For Research Use only

Handling

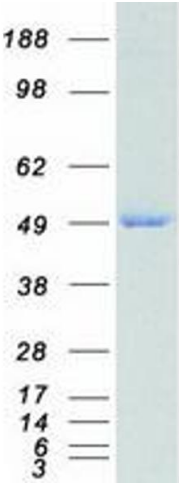
Concentration:	> 50 µg/mL
Buffer:	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10 % glycerol.
Storage:	-80 °C
Storage Comment:	Store at -80°C. Thaw on ice, aliquot to individual single-use tubes, and then re-freeze immediately. Only 2-3 freeze thaw cycles are recommended.

Images



Activity Assay

Image 1. Bioactivity measured with Activity Assay



Western Blotting

Image 2. Validation with Western Blot