

## Product datasheet for PH300505

### ALDH2 (NM\_000690) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	ALDH2 MS Standard C13 and N15-labeled recombinant protein (NP_000681)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC200505
Predicted MW:	56.4 kDa
Protein Sequence:	>RC200505 protein sequence Red=Cloning site Green=Tags(s)

MLRAAARFGPRLGRRLLSAAATQAVPAPNQPEVFCNQIFINNEWHDVSRKTFPTVNPSTGEVICQVAE  
GDKEDVDKAVKAARAAFQLGSPWRRMDASHRGRLLNRLADLIERDRTYLAALETLDNGKPYVISYLVLDL  
MVLKCLRYAGWADKYHGKTIPIDGDFFSYTRHEPVGCGQIIPWNFPLLMQAWKLGALATGNVVVMKV  
AEQTPLTALYVANLIKEAGFPPGVVNIIVPGFGPTAGAAIASHEDVDKVAFTGSTEIGRVIQVAAGSSNLK  
RVTLELGGKSPNIIMSDADMDWAVEQAHFALFFNQGCCAGSRTFVQEDIYDEFVERVARAKSRVVG  
PFDSKTEQGPQVDETQFKKILGYINTGKQEGAKLLCGGGIAADRGYFIQPTVFGDVQDGMTIAKEEIFGP  
VMQILKFKTIEEVVGRANNSTYGLAAAVFTKDLDKANYLSQALQAGTVVWNCYDVFQAQSPFGGYKMSG  
GRELGEYGLQAYTEVKTVTKVPQKNS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- 13C6, 15N4]-L-Arginine and [U- 13C6, 15N2]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<a href="#">NP_000681</a>
RefSeq Size:	2076
RefSeq ORF:	1551



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**Synonyms:** ALDH-E2; ALDHI; ALDM

**Locus ID:** 217

**UniProt ID:** [P05091](#), [A0A384NPN7](#)

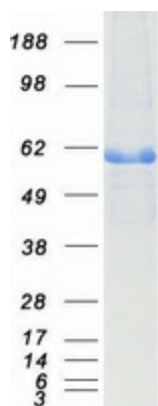
**Cytogenetics:** 12q24.12

**Summary:** This protein belongs to the aldehyde dehydrogenase family of proteins. Aldehyde dehydrogenase is the second enzyme of the major oxidative pathway of alcohol metabolism. Two major liver isoforms of aldehyde dehydrogenase, cytosolic and mitochondrial, can be distinguished by their electrophoretic mobilities, kinetic properties, and subcellular localizations. Most Caucasians have two major isozymes, while approximately 50% of East Asians have the cytosolic isozyme but not the mitochondrial isozyme. A remarkably higher frequency of acute alcohol intoxication among East Asians than among Caucasians could be related to the absence of a catalytically active form of the mitochondrial isozyme. The increased exposure to acetaldehyde in individuals with the catalytically inactive form may also confer greater susceptibility to many types of cancer. This gene encodes a mitochondrial isoform, which has a low  $K_m$  for acetaldehydes, and is localized in mitochondrial matrix. Alternative splicing results in multiple transcript variants encoding distinct isoforms.[provided by RefSeq, Nov 2016]

**Protein Families:** Druggable Genome

**Protein Pathways:** Arginine and proline metabolism, Ascorbate and aldarate metabolism, beta-Alanine metabolism, Butanoate metabolism, Fatty acid metabolism, Glycerolipid metabolism, Glycolysis / Gluconeogenesis, Histidine metabolism, Limonene and pinene degradation, Lysine degradation, Metabolic pathways, Propanoate metabolism, Pyruvate metabolism, Tryptophan metabolism, Valine, leucine and isoleucine degradation

### Product images:



Coomassie blue staining of purified ALDH2 protein (Cat# [TP300505]). The protein was produced from HEK293T cells transfected with ALDH2 cDNA clone (Cat# [RC200505]) using MegaTran 2.0 (Cat# [TT210002]).