

## Product datasheet for **TP304884**

### ALDH4A1 (NM\_170726) Human Recombinant Protein

#### Product data:

|                                       |  |
|---------------------------------------|--|
| Product Type:                         | Recombinant Proteins   |
| Description:                          | Recombinant protein of human aldehyde dehydrogenase 4 family, member A1 (ALDH4A1), nuclear gene encoding mitochondrial protein, transcript variant P5CDhS, 20 µg |
| Species:                              | Human  |
| Expression Host:                      | HEK293T  |
| Expression cDNA Clone or AA Sequence: | >RC204884 protein sequence<br><b>Red</b> =Cloning site <b>Green</b> =Tags(s)   |

MLLPAPALRRALLSRPWTGAGLRWKHTSSLKVANEPVLAFTQGSPPERDALQKALKDLKGRMEAIPCVGD  
EEVWTSQVQVSPFNHGHKVAKFCYADKSLNKAIEAALAARKEWDLKPIADRAQIFLKAADMLSGPRR  
AEILAKTMVGQGKTVIQAEIDAAAEIDFFRFNAKYAVELEGQQPISVPPSTNSTVYRGLEGFVAAISPF  
NFTAIGGNLAGAPALMGNVVLWKPSDTAMLASYAVYRILREAGLPPNIIQFVPADGPLFGDVTSSSEHLC  
GINFTGSVPTFKHLWKQVAQNDRFHTFPRLAGECGGKNFHFVHRSADVSVSGTLRSFAFEYGGQKCSA  
CSRLYVPHSLWPQIKGRLLLEHSRIKVGDP AEDFGTFFSAVIDAKSFARIKKWLEHARSSPSLTILAGGK  
CDDSVGYFVEPCIVESKDPQEPIMKEEIFGPVLSVYVYPDDKYKETLQLVDSTTSYGLTGAVFSQDKDW  
QEATKVLRNAAGNFYINDKSTGSIVGQQPFGGARASGTNDKPGGPHYILRWTSQVIKETHKPLGDWSYA  
YMQ

**SGPTRRPLEQKLISEEDLAANDILDYKDDDDKV**

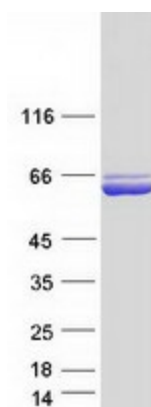
|                |  |
|----------------|--|
| Tag:           | C-Myc/DDK  |
| Predicted MW:  | 59 kDa   |
| Concentration: | >0.05 µg/µL as determined by microplate BCA method   |
| Purity:        | > 80% as determined by SDS-PAGE and Coomassie blue staining  |
| Buffer:        | 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol   |
| Preparation:   | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.                                     |
| Note:          | For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process. |
| Storage:       | Store at -80°C.  |



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|                          |  |
|--------------------------|--|
| <b>Stability:</b>        | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.  |
| <b>RefSeq:</b>           | <a href="#">NP_733844</a>  |
| <b>Locus ID:</b>         | 8659   |
| <b>UniProt ID:</b>       | <a href="#">P30038</a>   |
| <b>RefSeq Size:</b>      | 2386   |
| <b>Cytogenetics:</b>     | 1p36.13  |
| <b>RefSeq ORF:</b>       | 1689   |
| <b>Synonyms:</b>         | ALDH4; P5CD; P5CDh   |
| <b>Summary:</b>          | This protein belongs to the aldehyde dehydrogenase family of proteins. This enzyme is a mitochondrial matrix NAD-dependent dehydrogenase which catalyzes the second step of the proline degradation pathway, converting pyrroline-5-carboxylate to glutamate. Deficiency of this enzyme is associated with type II hyperprolinemia, an autosomal recessive disorder characterized by accumulation of delta-1-pyrroline-5-carboxylate (P5C) and proline. Alternatively spliced transcript variants encoding different isoforms have been identified for this gene. [provided by RefSeq, Jun 2009] |
| <b>Protein Families:</b> | Druggable Genome   |
| <b>Protein Pathways:</b> | Alanine, aspartate and glutamate metabolism, Arginine and proline metabolism, Metabolic pathways   |

### Product images:



Coomassie blue staining of purified ALDH4A1 protein (Cat# TP304884). The protein was produced from HEK293T cells transfected with ALDH4A1 cDNA clone (Cat# [RC204884]) using MegaTran 2.0 (Cat# [TT210002]).