

# Recombinant Human Aldehyde Dehydrogenase 1 Family, Member L1, His-tagged

**Cat. No.** ALDH1L1-491H    **Lot. No.** (See product label)

## SPECIFICATION

|                              |                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>      | Recombinant Human ALDH1L1 protein was expressed as 6-his-tagged fusion protein by E. coli and purified by Ni-sepharose. The purified protein was resolved in 1M PBS (58mM Na <sub>2</sub> HPO <sub>4</sub> , 17mM NaH <sub>2</sub> PO <sub>4</sub> , 68mM NaCl, pH8.) added with 300mM Imidazole and 0.7% Sarcosyl, 15% glycerol. MW= 44 kDa.                  |
| <b>Species</b>               | Human                                                                                                                                                                                                                                                                                                                                                          |
| <b>Source</b>                | E.coli                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>           | ALDH1L1 encoded by this gene catalyzes the conversion of 10-formyltetrahydrofolate, NADP, and water to tetrahydrofolate, NADPH, and carbon dioxide. ALDH1L1 belongs to the aldehyde dehydrogenase family and is responsible for formate oxidation in vivo. Deficiencies in ALDH1L1 can result in an accumulation of formate and subsequent methanol poisoning. |
| <b>Antigen peptideregion</b> | 157-505aa                                                                                                                                                                                                                                                                                                                                                      |
| <b>Molecular Weight</b>      | 44 kDa                                                                                                                                                                                                                                                                                                                                                         |
| <b>Full length</b>           | False                                                                                                                                                                                                                                                                                                                                                          |
| <b>Storage</b>               | The protein is stored in PBS buffer at -20°C. Repeated freeze-thaw cycles should be avoided.                                                                                                                                                                                                                                                                   |

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## GENE INFORMATION

|                            |                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | ALDH1L1 aldehyde dehydrogenase1 family, member L1 [ Homo sapiens ]                                                                                                                                                                                                                                                                                                    |
| <b>Official Symbol</b>     | ALDH1L1                                                                                                                                                                                                                                                                                                                                                               |
| <b>Synonyms</b>            | ALDH1L1;aldehyde dehydrogenase 1 family, member L1; FDH; FTHFD; 10-fTHF; cytosolic10-formyltetrahydrofolate dehydrogenase; 10-FTHFDH; formyltetrahydrofolatedehydrogenase; 10-formyltetrahydrofolate dehydrogenase; aldehydedehydrogenase family 1 member L1; EC 1.5.1.6; DKFZp781N0997;OTTHUMP00000155221; OTTHUMP00000214696; OTTHUMP00000214700;OTTHUMP00000222724 |
| <b>Gene ID</b>             | 10840                                                                                                                                                                                                                                                                                                                                                                 |
| <b>mRNA Refseq</b>         | NM_012190                                                                                                                                                                                                                                                                                                                                                             |
| <b>Protein Refseq</b>      | NP_036322                                                                                                                                                                                                                                                                                                                                                             |
| <b>MIM</b>                 | 600249                                                                                                                                                                                                                                                                                                                                                                |
| <b>UniProt ID</b>          | O75891                                                                                                                                                                                                                                                                                                                                                                |
| <b>Chromosome Location</b> | 3q21.3                                                                                                                                                                                                                                                                                                                                                                |
| <b>Pathway</b>             | One CarbonMetabolism; One carbon pool by folate                                                                                                                                                                                                                                                                                                                       |
| <b>Function</b>            | acyl carrieractivity; catalytic activity; cofactor binding; formyltetrahydrofolatedehydrogenase activity; hydroxymethyl-, formyl- and related transferaseactivity; methyltransferase activity; oxidoreductase activity;                                                                                                                                               |

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oxidoreductase activity, acting on the aldehyde or oxo group of donors, NAD or NADP as acceptor

**PDB rendering based  
on 1s3i.**

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