abcam

Product datasheet

Recombinant Human ALDH4A1/P5CDH protein ab160138

1 Image

Description

Product name	Recombinant Human ALDH4A1/P5CDH protein
Expression system	Wheat germ
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MLLPAPALRRALLSRPWTGAGLRWKHTSSLKVANEPVLA FTQGSPERDAL QKALKDLKGRMEAIPCVVGDEEVWTSDVQYQVSPFNHG HKVAKFCYADKS LLNKAIEAALAARKEWDLKPIADRAQIFLKAADMLSGPRRA EILAKTMVG QGKTVIQAEIDAAAELIDFFRFNAKYAVELEGQQPISVPPST NSTVYRGL EGFVAAISPFNFTAIGGNLAGAPALMGNVVLWKPSDTAML ASYAVYRILR EAGLPPNIIQFVPADGPLFGDTVTSSEHLCGINFTGSVPTF KHLWKQVAQ NLDRFHTFPRLAGECGGKNFHFVHRSADVESVVSGTLRS AFEYGGQKCSA CSRLYVPHSLWPQIKGRLLEEHSRIKVGDPAEDFGTFFSA VIDAKSFARI KKWLEHARSSPSLTILAGGKCDDSVGYFVEPCIVESKDP QEPIMKEEIFG PVLSVYVYPDDKYKETLQLIDSTTSYGLTGAVFSQDKDVV QEATKVLRNA AGNFYINDKSTGSIVGQQPFGGARASGTNDKPGGPHYILR WTSPQVIKET HKPLGDWSYAYMQ
Amino acids	1 to 563
Tags	GST tag N-Terminus

Specifications

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Our **Abpromise guarantee** covers the use of **ab160138** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Western blot ELISA
Form	Liquid
Additional notes	This product was previously labelled as ALDH4A1.

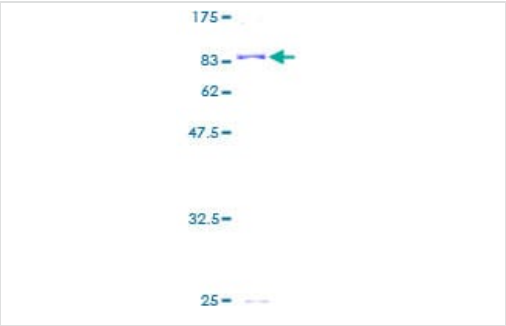
Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles. pH: 8.00 Constituents: 0.31% Glutathione, 0.79% Tris HCl

General Info

Function	Irreversible conversion of delta-1-pyrroline-5-carboxylate (P5C), derived either from proline or ornithine, to glutamate. This is a necessary step in the pathway interconnecting the urea and tricarboxylic acid cycles. The preferred substrate is glutamic gamma-semialdehyde, other substrates include succinic, glutaric and adipic semialdehydes.
Tissue specificity	Highest expression is found in liver followed by skeletal muscle, kidney, heart, brain, placenta, lung and pancreas.
Pathway	Amino-acid degradation; L-proline degradation into L-glutamate; L-glutamate from L-proline: step 2/2.
Involvement in disease	Defects in ALDH4A1 are the cause of hyperprolinemia type 2 (HP-2) [MIM:239510]. HP-2 is characterized by the accumulation of delta-1-pyrroline-5-carboxylate (P5C) and proline. The disorder may be causally related to neurologic manifestations, including seizures and mental retardation.
Sequence similarities	Belongs to the aldehyde dehydrogenase family.
Cellular localization	Mitochondrion matrix.

Images



SDS-PAGE - Recombinant Human ALDH4A1/P5CDH protein (ab160138)

ab160138 on a 12.5% SDS-PAGE stained with Coomassie Blue.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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