

Human ALDH3A1 Protein (His Tag)

Catalog Number: 12523-H07B



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

ALDH3, ALDHIII, MGC10406

Protein Construction:

A DNA sequence encoding the human ALDH3A1 (AAH04370.1) (Met 1-His 453) was fused with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human ALDH3A1 consists of 472 amino acids and has a calculated molecular mass of 52.6 kDa. It migrates as an approximately 50 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% gly

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

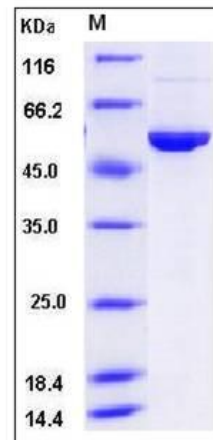
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Aldehyde dehydrogenase, dimeric NADP-preferring, also known as ALDHIII, Aldehyde dehydrogenase 3, Aldehyde dehydrogenase family 3 member A1 and ALDH3A1, is a cytoplasm protein which belongs to the aldehyde dehydrogenase family. Aldehyde dehydrogenase 3A1 (ALDH3A1) comprises a surprisingly high proportion (5-50% depending on species) of the water-soluble protein of the mammalian cornea, but is present little if at all in the cornea of other species. Mammalian ALDH3A1 has been considered a corneal crystallin, suggesting that it may contribute to the optical properties of the cornea as well. ALDHs play a major role in the detoxification of alcohol-derived acetaldehyde. They are involved in the metabolism of corticosteroids, biogenic amines, neurotransmitters, and lipid peroxidation. ALDH3A1 preferentially oxidizes aromatic aldehyde substrates. ALDH3A1 may play a role in the oxidation of toxic aldehydes.

References

1. Estey T. et al., 2007, Exp Eye Res. 84 (1): 3-12.
2. Choudhary C. et al., 2009, Science. 325: 834-40.
3. Estey T. et al., 2010, PLoS One 5. (12): 15218.

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