

Human ALDH7A1 / ATQ1 Protein (His Tag)

Catalog Number: 11614-H07E



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

ATQ1, EPD, FLJ11738, FLJ92814, PDE, ALDH7A1

Protein Construction:

A DNA sequence encoding the human ALDH7A1 isoform 2 (P49419-2) (Ser 2-Gln 511) was expressed, with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 93 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

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 ALDH7A1 consisting of 517 amino acids and migrates as an approximately 56 kDa band in SDS-PAGE under reducing conditions as predicted.

Formulation:

Lyophilized from sterile 50mM Tris, 500mM NaCl, 20% glycerol, pH 8.0

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.

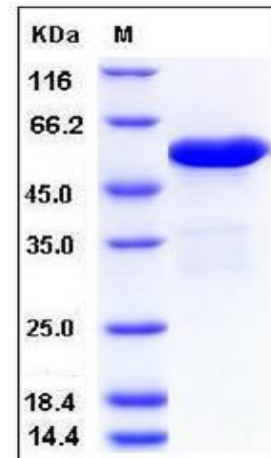
Usage Guide

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 7 family member A1 also known as ALDH7A1 and antiquitin, is an enzyme which is a member of subfamily 7 in the aldehyde dehydrogenase family. The aldehyde dehydrogenase (ALDH) superfamily represents a divergently related group of enzymes that metabolize a wide variety of endogenous and exogenous aldehydes. Aldehyde dehydrogenase is the second enzyme of the major oxidative pathway of alcohol metabolism. Two major liver isoforms of this enzyme, cytosolic and mitochondrial, can be distinguished by their electrophoretic mobilities, kinetic properties, and subcellular localizations. These enzymes are thought to play a major role in the detoxification of aldehydes generated by alcohol metabolism and lipid peroxidation. ALDH7A1 functions as an aldehyde dehydrogenase in the pipecolic acid pathway of lysine catabolism. Mutations in ALDH7A1 cause pyridoxine-dependent epilepsy, which involves a combination of various seizure types and is responsive to immediate administration of pyridoxine hydrochloride.

References

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2. Mills PB. et al., 2006, Nature Medicine12 (3): 307-9.
3. Walsh N, et al., 2008, Journal of proteomics71 (5): 561-71.
4. Barley K, et al., 2009, Schizophr. Res.112 (1-3): 54-64.
5. Chen YC, et al., 2009, Biochem. Biophys. Res. Commun.385 (3): 307-13.
6. Xiao T, et al., 2009, J. Toxicol. Environ. Health Part A72 (9): 577-84.

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