

Human ALDH1A3 / RALDH3 Protein (His Tag)



Sino Biological Inc.

Biological Solution Specialist

Catalog Number: 11636-H07E

General Information

Gene Name Synonym:

ALDH1A6; ALDH6; MCOP8; RALDH3; ALDH6; RALDH3; V1

Protein Construction:

A DNA sequence encoding the human ALDH1A3 (NP_000684.2) (Ala 2-Pro 512) was expressed, with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 96 % 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 ALDH1A3 consisting of 518 amino acids and migrates as an approximately 57 kDa band in SDS-PAGE under reducing conditions as predicted.

Formulation:

Lyophilized from sterile PBS, 0.5M NaCl, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 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:

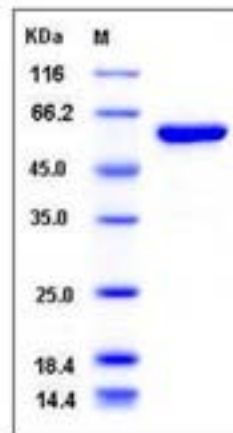
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Aldehyde dehydrogenase 1 family, member A3 (ALDH1A3), also known as Retinaldehyde dehydrogenase 3 (RALDH3), which belongs to the aldehyde dehydrogenase family. ALDH1A3 is a novel Cancer stem cell (CSC) marker with potential clinical prognostic applicability, and demonstrates a clear correlation between CSC prevalence and the development of metastatic breast cancer. The retinoic acid (RA) biosynthesis enzyme aldehyde dehydrogenase 1A3 (ALDH1A3) is a putative androgen-responsive gene in human prostate cancer epithelial (LNCaP) cells. The RA biosynthesis enzyme ALDH1A3 is androgen responsive and (ii) DHT up-regulation of ALDH1A3 can increase the oxidation of retinal to RA and indirectly affect RA bioactivity and metabolism.

References

1. Marcato P, et al. (2011) Aldehyde dehydrogenase activity of breast cancer stem cells is primarily due to isoform ALDH1A3 and its expression is predictive of metastasis. *Stem Cells*. 29(1)32-45.
2. Trasino SE, et al. (2007) Androgen regulation of aldehyde dehydrogenase 1A3 (ALDH1A3) in the androgen-responsive human prostate cancer cell line LNCaP. *Exp Biol Med (Maywood)*. 232(6): 762-71.

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