

Aldehyde Dehydrogenase 1 Family, Member A1 (ALDH1A1) Active Protein | ALDH1A1 active protein

Active Aldehyde Dehydrogenase 1 Family, Member A1 (ALDH1A1)

CATALOG # AAA148210	HOST E. coli	APPLICATIONS Activity Assay, Cell Culture
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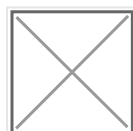
PRODUCT SYNONYMS

Aldehyde Dehydrogenase 1 Family; Member A1 (ALDH1A1); Active Aldehyde Dehydrogenase 1 Family; ALDH11; ALDH1; ALDC; PUMB1; RALDH1; Retinaldehyde Dehydrogenase 1; Aldehyde dehydrogenase; cytosolic; Retinal dehydrogenase 1; ALDH1A1 active protein

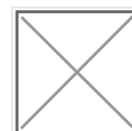
PRODUCT SPECIFICATIONS

Host	E. coli
Purity/Purification	>95%
Form/Format	20mM Tris, 150mM NaCl, pH8.0, containing 0.01% skl, 5 %Trehalose.
Concentration	200ug/mL (varies by lot)
Applicable Applications for ALDH1A1 active protein	Activity Assay, Cell Culture
Source	Prokaryotic expression.
Residues	Ser2~Ser501
Tags	N-terminal His-tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	6.3
Reconstitution	Reconstitute in ddH2O to a concentration ≤0.1mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months. Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

IMAGES



Application Data



WB (Western Blot)

Sample: Recombinant ALDH1A1, Human;Antibody: Rabbit Anti-Human ALDH1A1 Ab



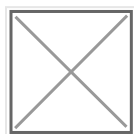
SDS-PAGE

Sample: Active recombinant ALDH1A1, Human



Bioactivity

ALDH1A1 (Retinal dehydrogenase 1) which belongs to the aldehyde dehydrogenase family, is the next enzyme after alcohol dehydrogenase in the major pathway of alcohol metabolism. ALDH1A1 converts retinaldehyde to retinoic acid. IL21 (interleukin 21) was identified as an interactor of ALDH1A1 through Affinity Capture-MS. Thus a binding ELISA assay was conducted to detect the interaction of recombinant human ALDH1A1 and recombinant human IL21. Briefly, ALDH1A1 were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100uL ALDH1A1 were then transferred to IL21-coated microtiter wells and incubated for 2h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-ALDH1A1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of ALDH1A1 and IL21 was shown in Figure 1, and this effect was in a dose dependent manner.



Sequence

ADDITIONAL INFORMATION

Product Categories/Family for
ALDH1A1 active protein

Metabolic pathway

NCBI AND UNIPROT INFORMATION

NCBI GI #	21361176
NCBI GeneID	216
NCBI Accession #	NP_000680.2
NCBI GenBank Nucleotide #	NM_000689.4
UniProt Accession #	P00352; O00768; Q5SYR1
Molecular Weight	Predicted Molecular Mass: 58.4kDa Accurate Molecular Mass: 58kDa as determined by SDS-PAGE reducing conditions.
NCBI Official Full Name	retinal dehydrogenase 1
NCBI Official Synonym Full Names	aldehyde dehydrogenase 1 family member A1
NCBI Official Symbol	ALDH1A1
NCBI Official Synonym Symbols	ALDC; ALDH1; HEL-9; HEL12; PUMB1; ALDH11; RALDH1; ALDH-E1; HEL-S-53e
NCBI Protein Information	retinal dehydrogenase 1
UniProt Protein Name	Retinal dehydrogenase 1
UniProt Gene Name	ALDH1A1
UniProt Synonym Gene Names	RALDH 1Curated; RalDH1Curated

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/aldehyde-dehydrogenase-1-family-member-a1-aldh1a1/148210>