

ALDH1A2 Protein, Human (His)

Cat. No.:	HY-P7475
Synonyms:	rHuAldehyde Dehydrogenase 1-A2, His ; ALDH-1A2; Aldehyde Dehydrogenase 1-A2
Species:	Human
Source:	E. coli
Accession:	O94788 (M1-S518)
Gene ID:	8854
Molecular Weight:	50-65 kDa

PROPERTIES

AA Sequence

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HHHHHHMTSS      K I E M P G E V K A      D P A A L M A S L H      L L P S P T P N L E
I K Y T K I F I N N      E W Q N S E S G R V      F P V Y N P A T G E      Q V C E V Q E A D K
A D I D K A V Q A A      R L A F S L G S V W      R R M D A S E R G R      L L D K L A D L V E
R D R A V L A T M E      S L N G G K P F L Q      A F Y V D L Q G V I      K T F R Y Y A G W A
D K I H G M T I P V      D G D Y F T F T R H      E P I G V C G Q I I      P W N F P L L M F A
W K I A P A L C C G      N T V V I K P A E Q      T P L S A L Y M G A      L I K E A G F P P G
V I N I L P G Y G P      T A G A A I A S H I      G I D K I A F T G S      T E V G K L I Q E A
A G R S N L K R V T      L E L G G K S P N I      I F A D A D L D Y A      V E Q A H Q G V F F
N Q G Q C C T A G S      R I F V E E S I Y E      E F V R R S V E R A      K R R V V G S P F D
P T T E Q G P Q I D      K K Q Y N K I L E L      I Q S G V A E G A K      L E C G G K G L G R
K G F F I E P T V F      S N V T D D M R I A      K E E I F G P V Q E      I L R F K T M D E V
I E R A N N S D F G      L V A A V F T N D I      N K A L T V S S A M      Q A G T V W I N C Y
N A L N A Q S P F G      G F K M S G N G R E      M G E F G L R E Y S      E V K T V T V K I P
Q K N S
  
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Biological Activity Data is not available.

Appearance Solution

Formulation Supplied as a 0.2 µm filter solution of 20 mM Tris-HCl, 150 mM NaCl, 20% Glycerol, pH 8.0.

Endotoxin Level <1 EU/µg, determined by LAL method.

Reconstitution N/A

Storage & Stability Stored at -80°C. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.

Shipping Shipping with dry ice.

DESCRIPTION

Background

The aldehyde dehydrogenase 1 (ALDH1) family comprises major enzymes that produce retinoic acid (RA) via the oxidation of all-trans retinal and 9-cis-retinal. The ALDH1A subfamily consists of three members, ALDH1A1, ALDH1A2, and ALDH1A3. ALDH1A2 is a rate-limiting enzyme involved in the cellular synthesis of retinoic acid, which has prodifferentiation properties. ALDH1A2 is a candidate tumor suppressor. Low ALDH1A2 expression was associated with an unfavorable prognosis in head and neck squamous cell carcinoma. ALDH1A2 suppresses epithelial ovarian cancer cell proliferation and migration by downregulating STAT3^{[1][2]}.

REFERENCES

- [1]. Choi JA, et al. ALDH1A2 Is a Candidate Tumor Suppressor Gene in Ovarian Cancer. *Cancers (Basel)*. 2019 Oct 14;11(10). pii: E1553.
- [2]. Wang Y, et al. ALDH1A2 suppresses epithelial ovarian cancer cell proliferation and migration by downregulating STAT3. *Onco Targets Ther*. 2018 Jan 31;11:599-608.
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Caution: Product has not been fully validated for medical applications. For research use only.

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