



Recombinant Protein Technical Manual  
Recombinant Human ALDH1A1/ALDC Protein (His  
Tag)  
RPES2227

Product Data:

**Product SKU:** RPES2227

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** P00352

Protein Information:

**Molecular Mass:** 57.0 kDa

**AP Molecular Mass:** 60 kDa

**Tag:** N-6His

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

**Shipping:** This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.

**Formulation:** Supplied as a 0.2 µm filtered solution of 20mM TrisHCl, pH8.5.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Retinal Dehydrogenase 1; RALDH 1; RaLDH1; ALDH-E1; ALHDII; Aldehyde Dehydrogenase Family 1 Member A1; Aldehyde Dehydrogenase Cytosolic; ALDH1A1; ALDC; ALDH1; PUMB10;ALDH11;HEL-9;HEL-S-53e;HEL12;PUMB1;RALDH1

## Immunogen Information:

**Sequence:** Met 1-Ser501

## Background:

Aldehyde Dehydrogenase Family 1 Member A1 (ALDH1A1) is a cytoplasmic enzyme that belongs to the Aldehyde Dehydrogenase family. ALDH1A1 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. ALDH1A1 is the main cytosolic isoform, which has a lower affinity for aldehydes than the mitochondrial enzyme. ALDH1A1 binds free retinal and cellular retinol-binding protein-bound retinal. It can convert/oxidize retinaldehyde to retinoic acid.