



# Recombinant Protein Technical Manual

## Recombinant Human ALDH1A3 Protein (His Tag)

RPES4728

### Product Data:

**Product SKU:** RPES4728

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** P47895

### Protein Information:

**Molecular Mass:** 57.5 kDa

**AP Molecular Mass:** 55-60 kDa

**Tag:** N-His

**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. Upon receipt, store it immediately at < -20°C.

**Formulation:** Supplied as a 0.2 µm filtered solution of 20mM TrisHCl, 150mM NaCl, pH 7.5, 20% Glycerol.

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

**Application:**

**Synonyms:** Aldehyde dehydrogenase family 1 member A3; ALDH1A3; Aldehyde dehydrogenase 6; Retinaldehyde dehydrogenase 3; RALDH-3; ALDH6; ALDH1A6; MCOP8; RALDH3

## Immunogen Information:

**Sequence:** Met1-Pro512

## Background:

Aldehyde dehydrogenase 1 family member A3 (ALDH1A3), also known as retinaldehyde dehydrogenase 3 (RALDH3), is a member of the aldehyde dehydrogenase family known to metabolize a wide variety of aldehydes. ALDH1A3 specifically oxidizes retinal to retinoic acid (RA) and is differentially expressed in developing embryonic tissues and adult organs. The RA produced by ALDH1A3 in rodents contributes to the development of skin and hair follicles, brain, tooth buds, lungs, olfactory bulbs, kidneys, eyes, skeletal muscle and seminal vesicles. In recent research, ALDH1A3 could be as a marker of cancer stem cell to predict metastasis or clinical prognosis in many cancers.