

## Product datasheet for **AP08840PU-N**

### ALDH1A1 (476-488) Goat Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IHC, WB
Recommended Dilution:	<b>ELISA:</b> 1/32000. <b>Immunohistochemistry on Paraffin Sections:</b> 2.5 µg/ml. <b>Western Blot:</b> 1/32000, 1 - 3 µg/ml.
Reactivity:	Human, Mouse, Rat, Bovine, Sheep
Host:	Goat
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic peptide from an internal region of Human ALDH1A1
Specificity:	This antibody recognizes Aldehyde Dehydrogenase 1 (ALDH1A1) at 476-488.
Formulation:	Tris saline buffer, pH 7.3 State: Aff - Purified State: Liquid purified Ig fraction Stabilizer: 0.5% BSA Preservative: 0.02% Sodium Azide
Concentration:	lot specific
Purification:	Immunoaffinity Chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	aldehyde dehydrogenase 1 family member A1
Database Link:	<a href="#">Entrez Gene 216 Human P00352</a>



[View online »](#)

**Background:**

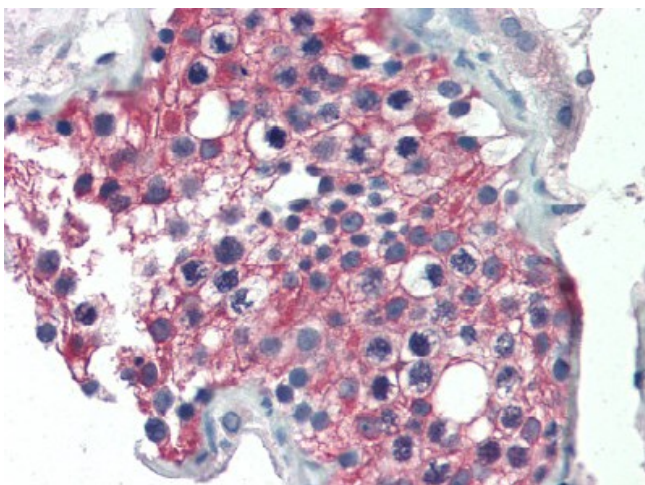
ALDH1A1 is an aldehyde dehydrogenase able to oxidize a wide variety of aliphatic aldehydes (retinaldehyde, acetaldehyde, etc.) to the corresponding carboxylic acids (retinoic acid, acetic acid, etc.). ALDH1A1 (also known as RALDH1, ALDH1, or AHD2) is highly expressed in the dorsal retina, ventral midbrain (dopaminergic neurons), and hematopoietic stem cells. ALDH1A1 is involved in retinoic acid (RA) synthesis during vertebrate embryogenesis. ALDH1A1 is first detected at E9.0-E10.5 in cranial tissues (ventral mesencephalon, dorsal retina, thymic primordia, optic vesicles) and in the mesonephros. ALDH1A1 is also of interest in Parkinson's Disease (PD) being expressed in the the A9 dopaminergic (DA) neuronal group projecting to the dorsal striatum; this is the most vulnerable site in PD (Chung et al, 2005). Some studies also identify ALDH1A1 as a marker of cancer stem cells. Studies of breast cancer tissues showed that those that expressed a form of ALDH1A1 had the worst outcomes.

**Synonyms:**

Retinal dehydrogenase 1, RALDH1, ALDH1A1, ALDC, PUMB1, Aldehyde dehydrogenase cytosolic, ALHDII, ALDH-E1

**Product images:**

Western Blot analysis of Human Liver Lysate (35 ug protein in RIPA buffer) using ALDH1A1 antibody. Primary incubation was 1 hour. Detected by chemiluminescence.



Formalin-Fixed Paraffin-Embedded Human Testis stained with ALDH1A1 antibody at 2.5 ug/ml followed by biotinylated anti-goat IgG secondary antibody, alkaline phosphatase-streptavidin and chromogen.