

Datasheet for ABIN968411

anti-Aldehyde Dehydrogenase antibody (AA 7-128)



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Overview

Quantity:	150 µg
Target:	Aldehyde Dehydrogenase (ALDH)
Binding Specificity:	AA 7-128
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Aldehyde Dehydrogenase antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunohistochemistry (IHC)

Product Details

Immunogen:	Human ALDH1 aa. 7-128
Clone:	44-ALDH
Isotype:	IgG1
Characteristics:	<ol style="list-style-type: none"> 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 3. Source of all serum proteins is from USDA inspected abattoirs located in the United States. 4. Please refer to us for technical protocols.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	Aldehyde Dehydrogenase (ALDH)
Alternative Name:	ALDH (ALDH Products)
Background:	<p>Aldehyde dehydrogenase (ALDH) is a ubiquitous enzyme located in nearly all mammalian tissues. It catalyzes the irreversible oxidation of a range of aliphatic and aromatic aldehydes to their corresponding carboxylic acids. There are multiple isoforms of ALDH which are subdivided into three classes. Class I includes the cytosolic isoforms. Class II includes the mitochondrial isoforms. Class III includes the microsomal, cytosolic tumor specific, and cytosolic dioxin-inducible forms. At least twelve human ALDH isoforms have been identified. Mutations of many of these proteins such as ALDH1, ALDH2, ALDH4, and ALDH10 have been implicated in multiple human metabolic disorders and clinical abnormalities. At the amino acid level, human ALDH isoforms exhibit a wide range of diversity (15% to about 80%). However, multiple protein regions have been highly conserved and are important for functional activities. A well-characterized member of the human ALDH family is ALDH1. It plays a major role in the biosynthesis of retinoic acid from retinol (vitamin A). Retinoic acid, the biologically active form of retinol, is a regulator of cellular proliferation, differentiation, and survival.</p>
Molecular Weight:	55 kDa

Application Details

Comment:	Related Products: ABIN967389, ABIN968533
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

Publications

- Product cited in: Zhou, Hanna, Roberts, Weber, Bell: "ALDH1 immunohistochemical expression and its significance in salivary adenoid cystic carcinoma." in: **Head & neck**, Vol. 35, Issue 4, pp. 575-8, (2013) ([PubMed](#)).
- Greene, Bahn, Masson, Rabbitts: "The T-cell oncogenic protein HOX11 activates Aldh1 expression in NIH 3T3 cells but represses its expression in mouse spleen development." in: **Molecular and cellular biology**, Vol. 18, Issue 12, pp. 7030-7, (1998) ([PubMed](#)).
- Yoshida, Rzhetsky, Hsu, Chang: "Human aldehyde dehydrogenase gene family." in: **European journal of biochemistry / FEBS**, Vol. 251, Issue 3, pp. 549-57, (1998) ([PubMed](#)).
- Kathmann, Lipsky: "Cloning of a cDNA encoding a constitutively expressed rat liver cytosolic aldehyde dehydrogenase." in: **Biochemical and biophysical research communications**, Vol. 236, Issue 2, pp. 527-31, (1997) ([PubMed](#)).

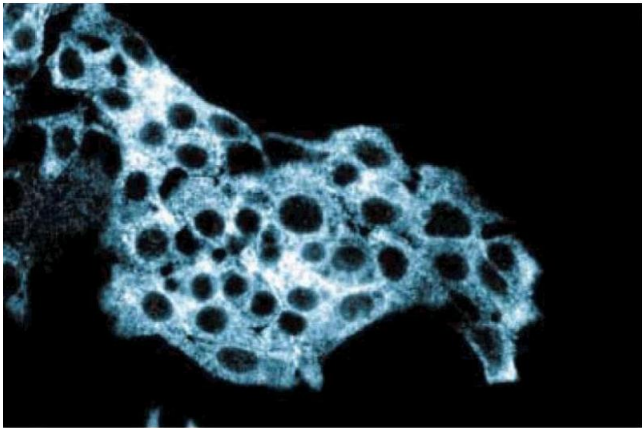
Images



Western Blotting

Image 1. Western blot analysis of ALDH on A431 cell lysate.

Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of anti-ALDH.



Immunofluorescence

Image 2. Immunofluorescent staining of HepG2 cells with anti-ALDH.

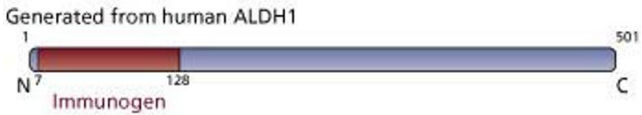


Image 3.