

## ALDH1A1 Monoclonal Antibody

<b>Catalog No :</b>	YM0022
<b>Reactivity :</b>	Human
<b>Applications :</b>	WB;IHC;IF;ELISA
<b>Target :</b>	ALDH1A1
<b>Fields :</b>	>>Retinol metabolism;>>Metabolic pathways
<b>Gene Name :</b>	ALDH1A1
<b>Protein Name :</b>	Retinal dehydrogenase 1
<b>Human Gene Id :</b>	216
<b>Human Swiss Prot No :</b>	P00352
<b>Mouse Swiss Prot No :</b>	P24549
<b>Immunogen :</b>	Purified recombinant fragment of human ALDH1A1 expressed in E. Coli.
<b>Specificity :</b>	ALDH1A1 Monoclonal Antibody detects endogenous levels of ALDH1A1 protein.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Monoclonal, Mouse
<b>Dilution :</b>	WB 1:500 - 1:2000. IHC 1:200 - 1:1000. ELISA: 1:10000.. IF 1:50-200
<b>Purification :</b>	Affinity purification
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Molecularweight :</b>	55kD
<b>Cell Pathway :</b>	Retinol metabolism;

**P References :**

1. J Hum Genet. 2009 Jun;54(6):317-23.
2. J Hum Genet. 2009 Oct;54(10):564-71.
3. J Neurosci Res. 2010 Feb 15;88(3):686-94.

**Background :**

The protein encoded by this gene belongs to the aldehyde dehydrogenase family. Aldehyde dehydrogenase is the next enzyme after alcohol dehydrogenase in the major pathway of alcohol metabolism. There are two major aldehyde dehydrogenase isozymes in the liver, cytosolic and mitochondrial, which are encoded by distinct genes, and can be distinguished by their electrophoretic mobility, kinetic properties, and subcellular localization. This gene encodes the cytosolic isozyme. Studies in mice show that through its role in retinol metabolism, this gene may also be involved in the regulation of the metabolic responses to high-fat diet. [provided by RefSeq, Mar 2011],

**Function :**

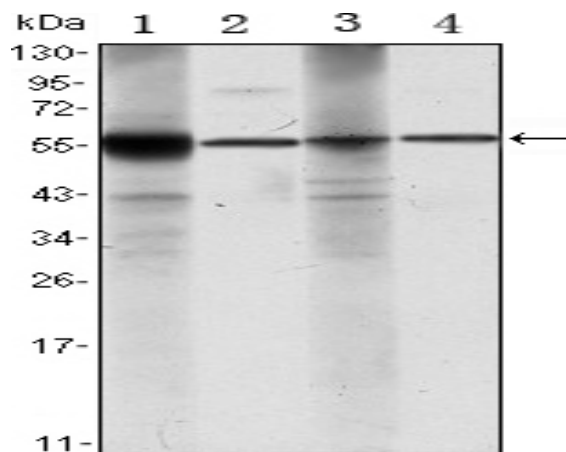
catalytic activity:Retinal + NAD(+) + H(2)O = retinoate + NADH.,function:Binds free retinal and cellular retinol-binding protein-bound retinal. Can convert/oxidize retinaldehyde to retinoic acid.,pathway:Cofactor metabolism; retinol metabolism.,similarity:Belongs to the aldehyde dehydrogenase family.,subunit:Homotetramer.,

**Subcellular Location :**

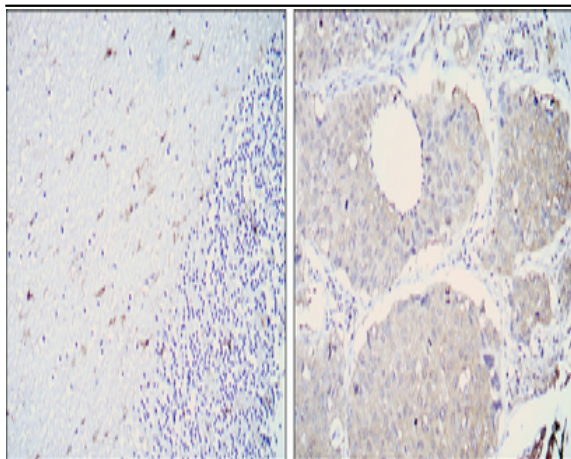
Cytoplasm, cytosol . Cell projection, axon .

**Expression :**

Expressed by erythrocytes (at protein level).

**Products Images**

Western Blot analysis using ALDH1A1 Monoclonal Antibody against Raji (1), Jurkat (2), THP-1 (3) and K562 (4) cell lysate.



Immunohistochemistry analysis of paraffin-embedded cerebellum tissues (left) and lung cancer (right) with DAB staining using ALDH1A1 Monoclonal Antibody.