

CYP26A1 Polyclonal Antibody

Catalog # AP69382

Product Information

Application WB, IF **Primary Accession** 043174

Reactivity Human, Mouse, Rat

HostRabbitClonalityPolyclonalCalculated MW56199

Additional Information

Gene ID 1592

Other Names CYP26A1; CYP26; P450RAI1; Cytochrome P450 26A1; Cytochrome P450

retinoic acid-inactivating 1; Cytochrome P450RAI; hP450RAI; Retinoic acid

4-hydroxylase; Retinoic acid-metabolizing cytochrome

Dilution WB~~Western Blot: 1/500 - 1/2000. Immunofluorescence: 1/200 - 1/1000.

ELISA: 1/20000. Not yet tested in other applications. IF~~1:50~200

Format Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium

azide.

Storage Conditions -20°C

Protein Information

Name CYP26A1 {ECO:0000303 | PubMed:26937021,

ECO:0000312 | HGNC:HGNC:2603}

Function A cytochrome P450 monooxygenase involved in the metabolism of

retinoates (RAs), the active metabolites of vitamin A, and critical signaling

molecules in animals (PubMed:22020119, PubMed:9228017,

PubMed:<u>9716180</u>). RAs exist as at least four different isomers: all- trans-RA (atRA), 9-cis-RA, 13-cis-RA, and 9,13-dicis-RA, where atRA is considered to be the biologically active isomer, although 9-cis-RA and 13-cis-RA also have activity (Probable). Catalyzes the hydroxylation of atRA primarily at C-4 and C-18, thereby contributing to the regulation of atRA homeostasis and signaling (PubMed:<u>22020119</u>, PubMed:<u>9228017</u>, PubMed:<u>9716180</u>).

Hydroxylation of atRA limits its biological activity and initiates a degradative process leading to its eventual elimination (Probable). Involved in the

convertion of atRA to all-trans-4-oxo-RA. Able to metabolize other RAs such as 9-cis, 13-cis and 9,13-di-cis RA (By similarity) (PubMed:9228017). Can oxidize all-trans-13,14- dihydroretinoate (DRA) to metabolites which could include all-trans-4- oxo-DRA, all-trans-4-hydroxy-DRA, all-trans-5,8-epoxy-DRA, and all-

trans-18-hydroxy-DRA (By similarity). May play a role in the oxidative metabolism of xenobiotics such as tazarotenic acid (PubMed: 26937021).

Cellular Location Endoplasmic reticulum membrane; Peripheral membrane protein. Microsome

membrane; Peripheral membrane protein

Tissue Location Expressed in most fetal and adult tissues with highest levels in adult liver,

heart, pituitary gland, adrenal gland, placenta and regions of the brain (PubMed:9826557). Expressed at high levels in lung, pancreas, skin and uterus (at protein level) (PubMed:22020119). Lower expression level is detected in

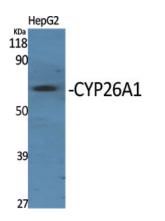
spleen, kidney, intestine and adipose tissue (at protein level)

(PubMed:22020119).

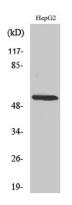
Background

Plays a key role in retinoic acid metabolism. Acts on retinoids, including all-trans-retinoic acid (RA) and its stereoisomer 9-cis-RA. Capable of both 4-hydroxylation and 18- hydroxylation. Responsible for generation of several hydroxylated forms of RA, including 4-OH-RA, 4-oxo-RA and 18-OH-RA.

Images



Western Blot analysis of various cells using CYP26A1 Polyclonal Antibody diluted at 1:1000



Western Blot analysis of 293 cells using CYP26A1 Polyclonal Antibody diluted at 1: 1000

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