

Cytochrome P450 26A1 Antibody Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP51143

Product Information

Application	WB, IP, ICC
Primary Accession	<u>043174</u>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	56199

Additional Information

Gene ID	1592
Other Names	Cytochrome P450 26A1, 114, Cytochrome P450 retinoic acid-inactivating 1, Cytochrome P450RAI, hP450RAI, Retinoic acid 4-hydroxylase, Retinoic acid-metabolizing cytochrome, CYP26A1, CYP26, P450RAI1
Dilution	WB~~1:1000 IP~~N/A ICC~~N/A
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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: <u>22020119</u> , PubMed: <u>9228017</u> , 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: <u>9228017</u>). Can oxidize 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 LocationEndoplasmic reticulum membrane; Peripheral membrane protein. Microsome
membrane; Peripheral membrane proteinTissue LocationExpressed 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.

References

White J.A., et al.J. Biol. Chem. 272:18538-18541(1997). Sonneveld E., et al.Cell Growth Differ. 9:629-637(1998). Ota T., et al.Nat. Genet. 36:40-45(2004). Deloukas P., et al.Nature 429:375-381(2004). Mural R.J., et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.