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Cytochrome P450 26A1 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51143

Product Information

Application	WB, IP, ICC
Primary Accession	O43174
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:22020119, PubMed:9228017, PubMed:9716180). 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:22020119, PubMed:9228017, PubMed:9716180). 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.

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.