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CYP26B1 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP7994b

Specification

CYP26B1 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q9NR63

CYP26B1 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 56603

Other Names
Cytochrome P450 26B1, 114--, Cytochrome P450 26A2, Cytochrome P450 retinoic acid-inactivating 2, Cytochrome P450RAI-2, Retinoic acid-metabolizing cytochrome, CYP26B1, CYP26A2, P450RAI2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7994b was selected from the C-term region of human CYP26B1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CYP26B1 Antibody (C-term) Blocking Peptide - Protein Information

Name CYP26B1

Synonyms CYP26A2, P450RAI2

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:10823918, PubMed:22020119). 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:10823918).

Hydroxylation of atRA limits its biological activity and initiates a degradative process leading to its eventual elimination (PubMed:10823918, PubMed:22020119). Involved in the convertion of atRA to all-trans-4-oxo-RA. 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). Shows preference for the following substrates: atRA > 9-cis-RA > 13-cis-RA (PubMed:10823918, PubMed:22020119). Plays a central role in germ cell development: acts by degrading RAs in the developing testis, preventing STRA8 expression, thereby leading to delay of meiosis. Required for the maintenance of the undifferentiated state of male germ cells during embryonic development in Sertoli cells, inducing arrest in G0 phase of the cell cycle and preventing meiotic entry. Plays a role in skeletal development, both at the level of patterning and in the ossification of bone and the establishment of some synovial joints (PubMed:22019272). Essential for postnatal survival (By similarity).

Cellular Location
Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:O43174}; Peripheral membrane protein {ECO:0000250|UniProtKB:O43174}. Microsome membrane {ECO:0000250|UniProtKB:O43174}; Peripheral membrane protein {ECO:0000250|UniProtKB:O43174}

Tissue Location
Highly expressed in brain, particularly in the cerebellum and pons.

CYP26B1 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

CYP26B1 Antibody (C-term) Blocking Peptide - Images

CYP26B1 Antibody (C-term) Blocking Peptide - Background

CYP26B1 is a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases that catalyze many reactions involved in drug metabolism and the synthesis of cholesterol, steroids and other lipids. The enzyme encoded by this gene is involved in the specific inactivation of all-trans-retinoic acid to hydroxylated forms, such as 4-oxo-, 4-OH-, and 18-OH-all-trans-retinoic acid.

CYP26B1 Antibody (C-term) Blocking Peptide - References

Bowles,J., Science 312 (5773), 596-600 (2006)Nelson,D.R., Pharmacogenetics 14 (1), 1-18 (2004)