

CYP26B1 Antibody
Rabbit Polyclonal Antibody
Catalog # ALS13642**Specification**

CYP26B1 Antibody - Product Information

Application	WB, IHC
Primary Accession	O9NR63
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	58kDa KDa

CYP26B1 Antibody - Additional Information**Gene ID** 56603**Other Names**

Cytochrome P450 26B1, 1.14.-.-, Cytochrome P450 26A2, Cytochrome P450 retinoic acid-inactivating 2, Cytochrome P450RAI-2, Retinoic acid-metabolizing cytochrome, CYP26B1, CYP26A2, P450RAI2

Target/Specificity

Human Cytochrome P450 26B. Predicted cross-reactivity based on amino acid sequence homology: mouse (94%), rat (94%).

Reconstitution & Storage

Aliquot and store at -20°C. Minimize freezing and thawing.

Precautions

CYP26B1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CYP26B1 Antibody - 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 conversion 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.

Volume

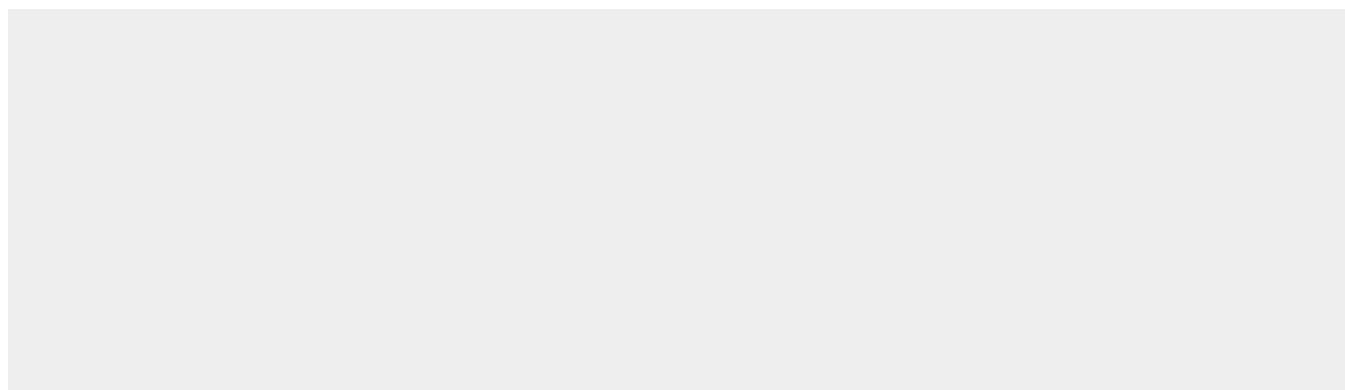
50 µl

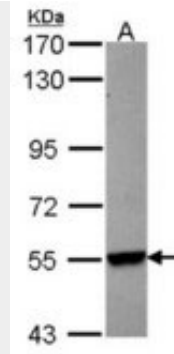
CYP26B1 Antibody - Protocols

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

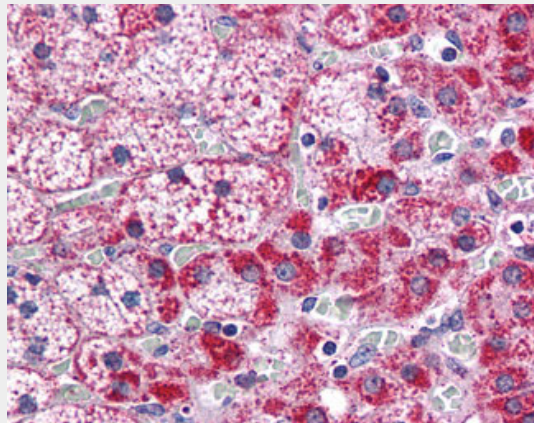
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CYP26B1 Antibody - Images





Sample (30 ug of whole cell lysate). A: Hep G2. 7.5% SDS PAGE. CYP26B1 antibody diluted at 1:1000.



Anti-CYP26B1 antibody IHC of human adrenal.

CYP26B1 Antibody - Background

Involved in the metabolism of retinoic acid (RA), rendering this classical morphogen inactive through oxidation. Involved in the specific inactivation of all-trans-retinoic acid (all-trans-RA), with a preference for the following substrates: all-trans-RA > 9-cis-RA > 13-cis-RA. Generates several hydroxylated forms of RA, including 4-OH-RA, 4-oxo-RA, and 18-OH- RA. Essential for postnatal survival. Plays a central role in germ cell development: acts by degrading RA 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.

CYP26B1 Antibody - References

- White J.A., et al. Proc. Natl. Acad. Sci. U.S.A. 97:6403-6408(2000).
- Savenstrand H., et al. Submitted (NOV-2008) to the EMBL/GenBank/DDBJ databases.
- Ota T., et al. Nat. Genet. 36:40-45(2004).
- Hillier L.W., et al. Nature 434:724-731(2005).
- Laue K., et al. Am. J. Hum. Genet. 89:595-606(2011).