



Anti-CYP46A1 polyclonal antibody (CPBT-66696GC)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview

This product recognises cholesterol 24-hydroxylase (CYP46A1), a 58 kDa member of the Cytochrome P450 family, expressed in the brain. CYP46A1 converts cholesterol into the biologically active oxysterol and 24(S)-hydroxycholesterol, in the first step of the enzymatic degradation of cholesterol in the brain. CYP46A1 is also thought to play a role in the metabolism of neurosteroids and drugs that can cross the blood-brain barrier and are targeted to the central nervous system. P450 enzymes are divided into two groups: steroidogenic and xenobiotic. The latter group is comprised of three families 1, 2 and 3. The xenobiotic p450s are involved in most oxidative drug metabolism. Work in this area is ongoing but studies suggest that all known drug metabolism is mediated by family members: CYP3A, CYP2D6, CYP1A2, CYP2C9/10, CYP2C19 and CYP2E1. Western Blotting detects a band of approximately 58kDa in human Alzheimer diseased brain lysates.

Specificity	CHOLESTEROL 24-HYDROXYLASE
Immunogen	Synthetic peptide corresponding to amino acid sequence 254-270 of human cholesterol 24-hydroxylase protein.
Isotype	IgG
Source/Host	Goat
Species Reactivity	Human
Conjugate	Unconjugated
Applications	ELISA; WB
Format	Serum - liquid
Size	100 µl

Preservative	0.09% Sodium Azide
Storage	in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

GENE INFORMATION

Gene Name	CYP46A1 cytochrome P450, family 46, subfamily A, polypeptide 1 [Homo sapiens (human)]
Official Symbol	CYP46A1
Synonyms	CYP46A1; cytochrome P450, family 46, subfamily A, polypeptide 1; CP46; CYP46; cholesterol 24-hydroxylase; CH24H; cytochrome P450 46A1; cytochrome P450, subfamily 46 (cholesterol 24-hydroxylase); CHOLESTEROL 24-HYDROXYLASE;
Entrez Gene ID	10858
Protein Refseq	NP_006659
UniProt ID	Q9Y6A2
Chromosome Location	14q32.1
Pathway	Bile acid and bile salt metabolism; Biological oxidations; Cytochrome P450 - arranged by substrate type; Defective CYP11A1 causes Adrenal insufficiency, congenital, with 46,XY sex reversal (AICSR); Defective CYP11B1 causes Adrenal hyperplasia 4 (AH4); Defective CYP11B2 causes Corticosterone methyloxidase 1 deficiency (CMO-1 deficiency); Defective CYP17A1 causes Adrenal hyperplasia 5 (AH5); Defective CYP19A1 causes Aromatase excess syndrome (AEXS);
Function	cholesterol 24-hydroxylase activity; heme binding; iron ion binding; steroid hydroxylase activity;