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**Product Name: CYP27A1 (5H15) Rabbit Monoclonal Antibody****Catalog #: AMRe09642**

For research use only.

**Summary**

<b>Description</b>	Recombinant rabbit monoclonal antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,ICC/IF,FC
<b>Reactivity</b>	Human,Mouse,Rat
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Monoclonal
<b>Form</b>	Liquid
<b>Concentration</b>	0.5mg/ml. The concentration of this product may be batch-dependent.
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Purification</b>	Affinity purification

**Application**

<b>Dilution Ratio</b>	WB 1:1000-1:5000,IHC 1:100-1:200,ICC/IF 1:50-1:100,FC 1:50-1:200
<b>Molecular Weight</b>	60kDa

**Antigen Information**

<b>Gene Name</b>	CYP27A1
<b>Alternative Names</b>	CP27; CTX; CYP; CYP27; CYP27A1;
<b>Gene ID</b>	1593.0
<b>SwissProt ID</b>	Q02318
<b>Immunogen</b>	A synthetic peptide of human CYP27A1

**Background**

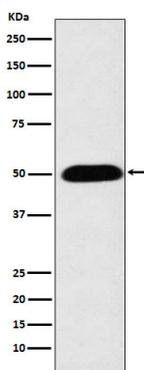
Catalyzes the first step in the oxidation of the side chain of sterol intermediates; the 27-hydroxylation of 5-beta-cholestane-3-

alpha,7-alpha,12-alpha-triol. Has also a vitamin D3-25-hydroxylase activity. Cytochrome P450 monooxygenase that catalyzes regio- and stereospecific hydroxylation of cholesterol and its derivatives. Hydroxylates (with R stereochemistry) the terminal methyl group of cholesterol side-chain in a three step reaction to yield at first a C26 alcohol, then a C26 aldehyde and finally a C26 acid (PubMed:9660774, PubMed:12077124, PubMed:21411718, PubMed:28190002). Regulates cholesterol homeostasis by catalyzing the conversion of excess cholesterol to bile acids via both the 'neutral' (classic) and the 'acid' (alternative) pathways (PubMed:9660774, PubMed:1708392, PubMed:11412116, PubMed:2019602, PubMed:7915755, PubMed:9186905, PubMed:9790667). May also regulate cholesterol homeostasis via generation of active oxysterols, which act as ligands for NR1H2 and NR1H3 nuclear receptors, modulating the transcription of genes involved in lipid metabolism (PubMed:9660774, PubMed:12077124). Plays a role in cholestanol metabolism in the cerebellum. Similarly to cholesterol, hydroxylates cholestanol and may facilitate sterol diffusion through the blood-brain barrier to the systemic circulation for further degradation (PubMed:28190002). Also hydroxylates retinal 7- ketocholesterol, a noxious oxysterol with pro-inflammatory and pro-apoptotic effects, and may play a role in its elimination from the retinal pigment epithelium (PubMed:21411718). May play a redundant role in vitamin D biosynthesis. Catalyzes 25-hydroxylation of vitamin D3 that is required for its conversion to a functionally active form (PubMed:15465040).

## Research Area

Cardiovascular

## Image Data



Western blot analysis of CYP27A1 expression in HepG2 cell lysate.