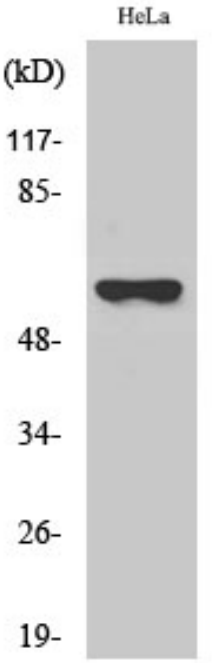
CYP27A1 Polyclonal Antibody

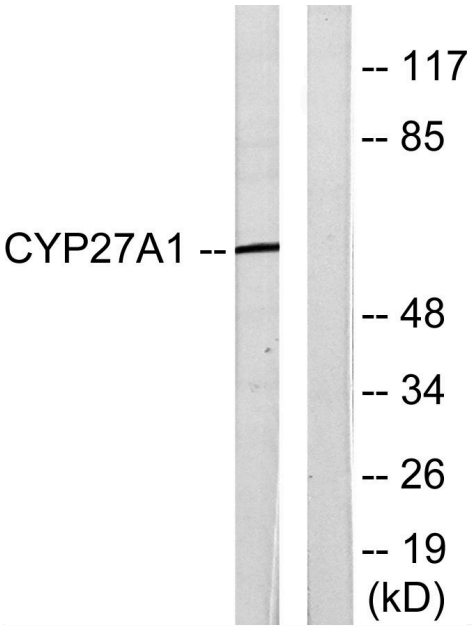
Catalog No	YP-Ab-02574
Isotype	IgG
Reactivity	Human;Rat;Mouse;
Applications	WB;IHC;IF;ELISA
Gene Name	CYP27A1
Immunogen	The antiserum was produced against synthesized peptide derived from human Cytochrome P450 27A1. AA range:101-150
Specificity	CYP27A1 Polyclonal Antibody detects endogenous levels of CYP27A1 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	5-beta-cholestane-3-alpha;7-alpha;12-alpha-triol 26-hydroxylase;CP27;CTX; CYP27;Cytochrome P 450C27/25;CYP27A1;Sterol 26-hydroxylase mitochondrial;Sterol 26-hydroxylase;mitochondrial;12-alpha-triol 27-hydroxylase; Cytochrome P-450C27/25;Cytochrome P450 27;Sterol 27-hydroxylase;Vitamin D(3) 25-hydroxylase
Observed Band	60kD
Calculated Molecular Weight	60kD
Cell Pathway	Mitochondrion inner membrane ; Peripheral membrane protein . Post-translationally targeted to mitochondria. All three of the receptor proteins in the TOM complex, TOMM70, TOMM20 and TOMM22 are required for the translocation across the mitochondrial outer membrane. After translocation into the matrix, associates with the inner membrane as a membrane extrinsic protein. .
Tissue Specificity	Expressed in the neural retina and underlying retinal pigment epithelium (at protein level) (PubMed:21411718). Expressed in the gray and white matter of cerebellum (at protein level) (PubMed:28190002).

Function	catalytic activity:5-beta-cholestane-3-alpha,7-alpha,12-alpha-triol + NADPH + O(2) = (25R)-5-beta-cholestane-3-alpha,7-alpha,12-alpha,26-tetraol + NADP(+) + H(2)O.,cofactor:Heme group.,disease:Defects in CYP27A1 are the cause of cerebrotendinous xanthomatosis (CTX) [MIM:213700]. CTX is a rare sterol storage disorder characterized clinically by progressive neurologic dysfunction, premature atherosclerosis, and cataracts.,function: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.,pathway:Hormone biosynthesis; cholecalciferol biosynthesis., similarity:Belongs to the cytochrome P450 family.,
Background	cytochrome P450 family 27 subfamily A member 1(CYP27A1) Homo sapiens This gene encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This mitochondrial protein oxidizes cholesterol intermediates as part of the bile synthesis pathway. Since the conversion of cholesterol to bile acids is the major route for removing cholesterol from the body, this protein is important for overall cholesterol homeostasis. Mutations in this gene cause cerebrotendinous xanthomatosis, a rare autosomal recessive lipid storage disease. [provided by RefSeq, Jul 2008],
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

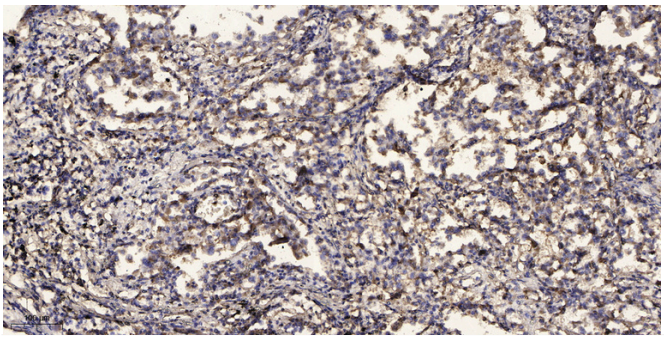
Products Images



Western Blot analysis of various cells using CYP27A1 Polyclonal Antibody diluted at 1:1000



Western blot analysis of lysates from HeLa cells, using Cytochrome P450 27A1 Antibody. The lane on the right is blocked with the synthesized peptide.



Immunohistochemical analysis of paraffin-embedded human Squamous cell carcinoma of lung. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).