

Recombinant Mouse Cyp7a1 Protein, Myc/DDK-tagged

Cat. No. Cyp7a1-2425M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length cytochrome P450, family 7, subfamily a, polypeptide 1 (Cyp7a1), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	A cytochrome P450 monooxygenase involved in the metabolism of endogenous cholesterol and its oxygenated derivatives (oxysterols). Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (CPR; NADPH-ferrihemoprotein reductase). Functions as a critical regulatory enzyme of bile acid biosynthesis and cholesterol homeostasis. Catalyzes the hydroxylation of carbon hydrogen bond at 7-alpha position of cholesterol, a rate-limiting step in cholesterol catabolism and bile acid biosynthesis (Probable). 7-alpha hydroxylates several oxysterols, including 4beta-hydroxycholesterol and 24-hydroxycholesterol. Catalyzes the oxidation of the 7,8 double bond of 7-dehydrocholesterol and lathosterol with direct and predominant formation of the 7-keto derivatives.
Molecular Mass	57.7 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Cyp7a1 cytochrome P450, family 7, subfamily a, polypeptide 1 [Mus musculus (house mouse)]
Official Symbol	Cyp7a1
Synonyms	CYP7A1; cytochrome P450, family 7, subfamily a, polypeptide 1; cholesterol 7-alpha-monooxygenase; CYPVII; cytochrome P450 7A1; cytochrome P450, 7a1; cholesterol 7 alpha hydroxylase; cholesterol 7-alpha-hydroxylase
Gene ID	13122
mRNA Refseq	NM_007824
Protein Refseq	NP_031850
UniProt ID	Q64505

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA