

CYP2C19 Protein, Human, Recombinant (His & Myc)

General Information

Synonyms:	Cytochrome P450-11A;Fenbendazole monooxygenase (4'-hydroxylating);CYP11C19;CYP11C17;(S)-limonene 7-monooxygenase;Cytochrome P450 2C19;CYP2C19;(R)-limonene 6-monooxygenase;Cytochrome P450-254C;Mephenytoin 4-hydroxylase;(S)-limonene 6-monooxygenase
Protein Construction:	26-490 aa
Species:	Human
Expression Host:	E. coli
Accession:	P33261
Molecular Weight:	60.6 kDa (predicted)
AA Sequence:	RGKLPPGPTPLPVIGNILQIDIKDVSKSLTNLSKIYGPVFTLYFGLERMVVLHGYEVVKEALIDLGEEFSGRGRHFP LAERANRFGFIVFNSNGKRWKEIRRFSLMTRLNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPC NVICSIIQKRFDYKDQQFLNLMKLNENIRIVSTPWIQICNNFPTIIDYFPGTHNKLKLNLAFMESDILEKVKEH QESMDINNPRDFIDCFLIKMEKEKQNNQSEFTIENLVITAADLLGAGTETTSTTLRYALLLLKHPEVTAKVQEEI ERVVGRNRSPCMQDRGHMPYTDVVHEVQRYIDLIPSTLPHAVTCDVKFRNYLIPKGTILTSLTSVLHDNKEF PNPEMFDRHFLDEGGNFKKSNYFMPFSAGKRICVGEGLARMELFLFTFILQNFNLKSLIDPKDLDTTPVVNG FASVPPFYQLCFIPV

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Tris-based buffer, 50% glycerol

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

A cytochrome P450 monooxygenase involved in the metabolism of polyunsaturated fatty acids (PUFA). 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 (NADPH--hemoprotein reductase). Catalyzes the hydroxylation of carbon-hydrogen bonds. Hydroxylates PUFA specifically at the omega-1 position. Catalyzes the epoxidation of double bonds of PUFA. Also metabolizes plant monoterpenes such as limonene. Oxygenates (R)- and (S)-limonene to produce carveol and perillyl alcohol. Responsible for the metabolism of a number of therapeutic agents such as the anticonvulsant drug S-mephenytoin, omeprazole, proguanil, certain barbiturates, diazepam, propranolol, citalopram and imipramine. Hydroxylates fenbendazole at the 4' position.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481