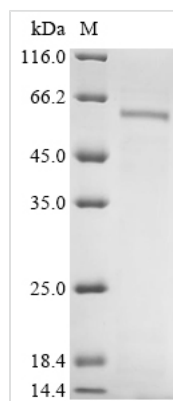




Recombinant Human Cytochrome P450 1A1 (CYP1A1)

Product Code	CSB-EP006395HU
Abbreviation	Recombinant Human CYP1A1 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P04798
Storage Buffer	Tris-based buffer,50% glycerol
Product Type	Recombinant Proteins
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	MLFPISMSATEFLLASVIFCLVFWVIRASRPQVPKGLKNPPGPWGWPLIGHMLT LGKNPHLALSRMSQQYGDVLQIRIGSTPVVVLSGLDTIRQALVRQGDDFKGRP DLYTFTLISNGQSMSFSPDSGPVWAARRRLAQNLKSFASIADPASSTSCYLE EHVSKEAEVLISTLQELMAGPGHFNPYRYVVSVTNVICAICFGRRYDHNHQE LLSLVNLNNNFGEVVGSGNPADFIPILRYLPNPSLNAFKDLNEKFYSFMQKMVK EHYKTFEKGHIRDITDSLIEHCQEKQLDENANVQLSDEKIINIVLDLFGAGFDTVT TAISWSLMYLMNPRVQRKIQEELDTVIGRSRRPRLSDRSHLPYMEAFIETFR HSSFVPFTIPHSTTRDTSLKGFYIPKGRCVFVNQWQINHDQKLWVNPSEFLPE RFLTPDGAIDKVLSEKVIIFGMGKRKCIGETIARWEVFLFLAILLQRVEFSVPLGV KVDMTPIYGLTMKHACCEHFQMQLRS
Research Area	Cancer
Source	E.coli
Target Names	CYP1A1
Protein Names	Recommended name: Cytochrome P450 1A1 EC= 1.14.14.1 Alternative name(s): CYP1A1 Cytochrome P450 form 6 Cytochrome P450-C Cytochrome P450-P1
Expression Region	1-512aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	63.7 kDa
Protein Length	Full Length
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The recombinant Human CYP1A1 was expressed with the amino acid range of 1-512. This CYP1A1 protein is expected to have a theoretical molecular weight of 63.7 kDa. Expression of this CYP1A1 protein is conducted in e.coli. The CYP1A1 gene fragment has been modified by fusing the N-terminal 6xHis tag, providing convenience in detecting and purifying the recombinant CYP1A1 protein during the following stages.

Cytochrome P450 1A1 (CYP1A1) is an enzyme that plays a crucial role in the metabolism of various exogenous compounds, particularly those derived from environmental pollutants and xenobiotics. It is a member of the cytochrome P450 superfamily of enzymes, primarily expressed in the liver, lungs, and other tissues. CYP1A1 is involved in the oxidation of polyaromatic hydrocarbons (PAHs), found in tobacco smoke and charred meats, into reactive metabolites. Additionally, it participates in the metabolism of endogenous compounds, including the conversion of estradiol to 2-hydroxyestradiol. The enzyme's ability to activate or detoxify a wide range of compounds makes it a critical player in both the detoxification processes and the bioactivation of potential carcinogens. Research areas related to CYP1A1 include studies on environmental toxicology, cancer susceptibility, and drug metabolism. Understanding the regulation and function of CYP1A1 is essential for assessing the impact of environmental exposures and developing strategies for personalized medicine.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.