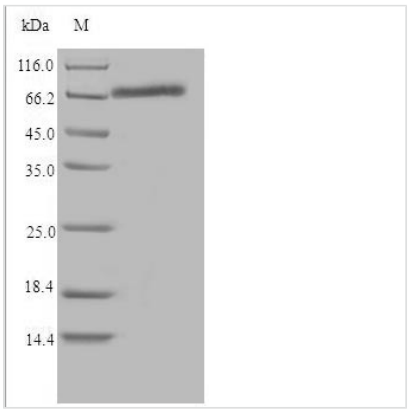
Recombinant Rat Cytochrome P450 1B1 (Cyp1b1)

Product Code	CSB-EP731067RA
Relevance	Cytochromes P450 are a group of heme-thiolate monooxygenases. In liver microsomes, this enzyme is involved in an NADPH-dependent electron transport pathway. It oxidizes a variety of structurally unrelated compounds, including steroids, fatty acids, retinoid and xenobiotics. Preferentially oxidizes 17beta-estradiol to the carcinogenic 4-hydroxy derivative, and a variety of procarcinogenic compounds to their activated forms, including polycyclic aromatic hydrocarbons. Promotes angiogenesis by removing cellular oxygenation products, thereby decreasing oxidative stress, release of antiangiogenic factor THBS2, then allowing endothelial cells migration, cell adhesion and capillary morphogenesis. These changes are concommitant with the endothelial nitric oxide synthase activity and nitric oxide synthesis. Plays an important role in the regulation of perivascular cell proliferation, migration, and survival through modulation of the intracellular oxidative state and NF-kappa-B expression and/or activity, during angiogenesis. Contributes to oxidative homeostasis and ultrastructural organization and function of trabecular meshwork tissue through modulation of POSTN expression.
Abbreviation	Recombinant Rat Cyp1b1 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.	Q64678
Alias	CYPIB1 Cytochrome P450RAP
Product Type	Recombinant Protein
Immunogen Species	Rattus norvegicus (Rat)
Purity	≥ 90% as determined by SDS-PAGE.
Sequence	MATSLSADSPQQLSSLSTQQTILLLLVSVLAIVHLGQWLLRQWRRKPWSSPPG PFPWPLIGNAASVGRASHLYFARLARRYGDVFQIRLGSCPVVVLNGESAIHQA LVQQGGVFADRPPFASFRVVSGGRSLAFGHYSERWKERRRAAYGTMRAFST RHPRSRGLLEGHALGEARELVAVLVRRCAGGACLDPTQPIIVAVANVMSAVCF GCRYNHDDAEFLELLSHNEEFGRTVGAGSLVDVMPWLQLFPNPVRTIFREFE QINRNFSNFVLDKFLRHRESLVPGAAPRDMMDAFILSAEKKATGDPGDSPSGL DLEDVPATITDIFGASQDTLSTALLWLLILFTRYPDVQARVQAELDQVVGRDRL PCMSDQPNLPYVMAFLYESMRFTSFLPVTLPHATTANTFVLGYYIPKNTVVFV NQWSVNHDPAKWSNPEDFDPARFLDKDGFINKALASSVMIFSVGKRRCIGEEL SKTLLFLFISILAHQCNFKANQNEPSNMSFSYGLSIKPKSFKIHVSLRESMKLLD SAVEKLQAEEACQ
Research Area	Metabolism
Source	E.coli

Target Names	Cyp1b1
Expression Region	1-543aa
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	64.6kDa
Protein Length	Full Length

Image



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

Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
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.