Recombinant CP4F8 protein (His tag)

Catalog Number	540144
Synonyms	CYPIVF8
Species	Human
Expression System	E. coli
Accession	P98187
Molecular Weight	Predictes a molecular mass of 57.60 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 58 kDa band.

Product Information

Sequence Region	38-520
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 38-520 aa (P98187) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Cytochrome P450 4F8 (CYP4F8) Fragment (aa 38-520) is a high-purity, stable protein designed for structural and biochemical studies. This fragment retains key catalytic activity, enabling research into its role in metabolizing polyunsaturated fatty acids and oxylipins, making it ideal for enzyme characterization and drug discovery applications. Cytochrome P450 4F8 (CYP4F8) is a human monooxygenase expressed in the endoplasmic reticulum and microsomal membranes, where it functions as a critical enzyme in the metabolism of endogenous polyunsaturated fatty acids (PUFAs) and their oxygenated derivatives (oxylipins). It utilizes NADPH and molecular oxygen to catalyze hydroxylation and epoxidation reactions, with a preference for omega-1 and omega-2 positions. CYP4F8 hydroxylates arachidonate to form 18R-HETE and acts on prostaglandin derivatives such as PGH1, PGH2, and PGI2, while showing minimal activity toward other prostaglandins and leukotriene B4. Its role in oxylipin biosynthesis underscores its importance in physiological and pathological processes, including inflammation and lipid signaling pathways.