Recombinant CP2B6 protein (His tag)

Catalog Number	546832
Synonyms	1,4-cineole 2-exo-monooxygenase; CYPIIB6; Cytochrome P450 IIB1
Species	Human
Expression System	E. coli
Accession	P20813
Molecular Weight	Predictes a molecular mass of 57.94 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 58 kDa band.

Product Information

Sequence Region	1-491
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 1-491 aa (P20813) 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 2B6 (CYP2B6) Fragment (1-491 aa) is a high-purity, stable protein derived from human sources, designed for structural and biochemical studies. This fragment encompasses key functional domains, enabling research into its roles in endocannabinoid metabolism, steroid hydroxylation, and xenobiotic processing. Cytochrome P450 2B6 (CYP2B6) is a cytochrome P450 monooxygenase involved in critical metabolic pathways. It catalyzes the epoxidation of endocannabinoids like anandamide to produce EpETrE-EAs, which may modulate endocannabinoid signaling, and hydroxylates steroid hormones such as testosterone and estrogens. Additionally, CYP2B6 participates in the oxidative metabolism of xenobiotics, including plant lipids and pharmaceuticals, and functions as a 1,4-cineole 2-exo-monooxygenase. The enzyme is localized to the endoplasmic reticulum and microsome membranes as a peripheral membrane protein, where it utilizes molecular oxygen and NADPH via cytochrome P450 reductase for its catalytic activities.