Recombinant C4AE1 protein (His tag)

Catalog Number	534718
Synonyms	CYPIVAE1
Species	Drosophila melanogaster
Expression System	E. coli
Accession	O46054
Gene ID	31193
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	1-496
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1-496 aa (O46054) 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 4ae1 (CYPIVAE1) Fragment (1-496) from Drosophila melanogaster, a stable and soluble protein unit optimized for structural and biochemical studies. This fragment supports research into insect hormone metabolism and insecticide resistance mechanisms. Cytochrome P450 4ae1 (EC 1.14.-.-) is an enzyme from Drosophila melanogaster implicated in the metabolism of insect hormones and the breakdown of synthetic insecticides, playing a critical role in physiological and detoxification pathways. The full-length protein is localized to the endoplasmic reticulum and microsome membranes as a peripheral membrane protein, where it facilitates key oxidative reactions. This recombinant fragment (residues 1-496) encompasses the functional domain, enabling detailed investigation of its catalytic and structural properties in insect biology and pesticide research.