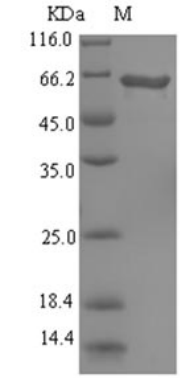
Recombinant Pseudomonas aeruginosa L-ornithine 5-monooxygenase (pvdA)

Product Code	CSB-EP706553EZX
Relevance	Catalyzes the conversion of L-ornithine to N(5)-hydroxyornithine, the first step in the biosynthesis of all hydroxamate-containing siderophores, such as pyoverdin. Pyoverdin is a hydroxamate siderophore composed of a 6,7-dihydroxyquinoline-containing fluorescent chromophore joined to the N-terminus of a partly cyclic octapeptide (D-Ser-L-Arg-D-Ser-L-N(5)-OH-Orn-L-Lys-L-N(5)-OH-Orn-L-Thr-L-Thr in strain PAO1). Specific for NADPH, which plays a role in stabilization of the C4a-hydroperoxyflavin intermediate.
Abbreviation	Recombinant Pseudomonas aeruginosa pvdA 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.	Q51548
Alias	L-ornithine N(5)-hydroxylase L-ornithine N(5)-oxygenase Pyoverdin biosynthesis protein A
Product Type	Recombinant Protein
Immunogen Species	Pseudomonas aeruginosa (strain ATCC 15692 / DSM 22644 / CIP 104116 / JCM 14847 / LMG 12228 / 1C / PRS 101 / PAO1)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MTQATATAVVHDLIGVGFGPSNIALAIALQERAQAQGALEVLFLDKQGDYRWH GNTLVSQSELQISFLKDLVSLRNPTSPYSFVNYLHKHDRLVDFINLGTFYPCRM EFNDYLRWVASHFQEQSRYGEEVLRIEPMLSAGQVEALRVISRNADGEELVRT TRALVVSPGGTPRIPQVFRALKGDGRVFHHSQYLEHMAKQPCSSGKPMKIAII GGGQSAAEAFIDLNDSYPSVQADMILRASALKPADDSPFVNEVFAPKFTDLIYS REHAERERLLREYHNTNYSVVDTDLIERIYGVFYRQKVSGIPRHAFRCMTTVE RATATAQGIELALRDAGSGELSVETYDAVILATGYERQLHRQLLEPLAEYLGDH EIGRDYRLQTDERCKVAIYAQGFSQASHGLSDTLLSVLPVRAEEISGSLYQHLK PGTAARALHEHALAS
Research Area	Others
Source	E.coli
Target Names	pvdA
Expression Region	1-443aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged

Mol. Weight	65.5kDa
Protein Length	Full Length

Image



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

Description

Constructing a plasmid encoding the Pseudomonas aeruginosa (strain ATCC 15692 / PAO1 / 1C / PRS 101 / LMG 12228) pvdA protein (1-443aa) initiates the general approach for generating the recombinant Pseudomonas aeruginosa (strain ATCC 15692 / PAO1 / 1C / PRS 101 / LMG 12228) pvdA protein. Transformation of the plasmid into e.coli cells obtains the plasmid-containing e.coli cells, which are cultured and induced for protein expression. A N-terminal 6xHis-SUMO tag is fused to the protein. Subsequently, the protein is purified through affinity purification, and SDS-PAGE analysis is undertaken to confirm the presence and assess the purity of the protein. The protein's purity exceeds 90%.

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.
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