Data Sheet (Cat.No.TMPH-00757)

Reticuline oxidase Protein, Eschscholzia californica, Recombinant (His)

General Information

Synonyms:	Tetrahydroprotoberberine synthase;Reticuline oxidase;Berberine bridge-forming enzyme (BBE);BBE1
Protein Construction:	24-538 aa
Species:	Eschscholzia californica
Expression Host:	E. coli
Accession:	P30986
Molecular Weight:	61.4 kDa (predicted)
AA Sequence:	GNDLLSCLTFNGVRNHTVFSADSDSDFNRFLHLSIQNPLFQNSLISKPSAIILPGSKEELSNTIRCIRKGSWTIRL RSGGHSYEGLSYTSDTPFILIDLMNLNRVSIDLESETAWVESGSTLGELYYAITESSSKLGFTAGWCPTVGTGGH ISGGGFGMMSRKYGLAADNVVDAILIDANGAILDRQAMGEDVFWAIRGGGGGVWGAIYAWKIKLLPVPEKVT VFRVTKNVAIDEATSLLHKWQFVAEELEEDFTLSVLGGADEKQVWLTMLGFHFGLKTVAKSTFDLLFPELGLVE EDYLEMSWGESFAYLAGLETVSQLNNRFLKFDERAFKTKVDLTKEPLPSKAFYGLLERLSKEPNGFIALNGFGG QMSKISSDFTPFPHRSGTRLMVEYIVAWNQSEQKKKTEFLDWLEKVYEFMKPFVSKNPRLGYVNHIDLDLGGI DWGNKTVVNNAIEISRSWGESYFLSNYERLIRAKTLIDPNNVFNHPQSIPPMANFDYLEKTLGSDGGEVVI

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Tris-based buffer, 50% glycerol

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Essential to the formation of benzophenanthridine alkaloids in the response of plants to pathogenic attack. Catalyzes the stereospecific conversion of the N-methyl moiety of (S)-reticuline into the berberine bridge carbon of (S)-scoulerine.

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