

Recombinant Dimethylglycine Oxidase

Cat. No. DMGO-79 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Dimethylglycine oxidase originated from <i>Arthrobacter globiformis</i> fused to His Tag at N-terminal produced in <i>E. coli</i> is a single, non-glycosylated, polypeptide chain containing 850 amino acids and having a molecular mass of 92.1 kDa. The DMGO is purified by proprietary chromatographic techniques.
Source	<i>E. coli</i>
Description	Dimethylglycine oxidase (DMGO) is a covalent flavoenzyme from <i>Arthrobacter globiformis</i> that catalyzes the oxidative demethylation of dimethylglycine to yield sarcosine, formaldehyde, and hydrogen peroxide. The N-terminal region binds FAD covalently so it is yellowish.
Amino acid sequence	MGSSHHHHHH SSGLVPRGSH MASTPRIVII GAGIVGTNLA DELVTRGWNN ITVLDQGPLN MPGGSTSHAP GLVFQTNPSK TMASFAKYTVEKLLSLTEDG VSCFNQVGGL EVATTETRLA DLKRKLG YAA AWGIEGRLLS PAECQELYPL LDGENILGGL HVPSDGLASA ARAVQLLIKRTESAGVTYRG STTVTGIEQS GGRVTGVQTA DGVIPADIVV SCAGFWGAKI GAMIGMAVPL LPLAHQYVKT TPVPAQQGRN DQPNGARLPILRHQDQDLYY REHGDYRGIG SYAHRPMPVD VDTLGAYAPE TVSEHHMPSR LDFTLEDFLP AWEATKQLLP ALADSEIEDG FNGIFSFTPDGGPPLLGESKE LDGFYVAEAV WVTHSAGVAK AMAELLTTGR SETDLGECDI TRFEDVQLTP EYVSETSQQN FVEIYDVLHP LQPRLSRNL RVSPFHARHK ELGAFFLEAG GWERPYWFEA NAALLKEMPA EWLPPARDAW SGMFSSPIAA AEAWKTRTAV AMYDMTPLKR LEVSGPGALKLLQELTTADL AKKPGAVTYT LLLDHAGGVR SDITVARLSE

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DTFQLGANGN IDTAYFERAA RHQTQSGSAT DWVQVRDTTG
 GTCCIGLWGPLARDLVSKVS DDDFTNDGLK YFRAKNVIG GIPVTAMRLS
 YVGELGWELY TSADNGQRLW DALWQAGQPF GVIAAGRAAF
 SSLRLEKGYRSWGTDMTTEH DPFEAGLGFA VKMAKESFIG KGALEGRTEE
 ASARRLRCLT IDGGRSIVLG KEPVFYKEQA VGYVTSAAYG
 YTVAKPIAYSYPGTVSVGD SVDIEYFGRR ITATVTEDPL YDPKMTRLRG.

Physical Appearance Sterile filtered liquid formulation 1 mg/ml.

Purity Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Formulation The Recombinant Dimethylglycine Oxidase solution contains 20 mM Tris-HCl pH7.5 and 20% glycerol.

Stability Dimethylglycine Oxidase Recombinant although stable at 4°C for 30 days, should be stored desiccated below -20°C for periods greater than 30 days. Please prevent freeze-thaw cycles.

GENE INFORMATION

Synonyms dimethylglycine oxidase; N,N-dimethylglycine:oxygen oxidoreductase (demethylating); DMGO, Dimethylglycine Oxidase; EC 1.5.3.10.

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