

Recombinant *Arthrobacter globiformis* DMGO protein

Catalog Number: DMG0601

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-830aa

UniProt No.

Q9AGP8

NCBI Accession No.

AF329477

Alternative Names

Dimethylglycine oxidase, DMG

PRODUCT SPECIFICATION

Molecular Weight

92.1 kDa (850aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol

Purity

> 95% by SDS-PAGE

Tag

His-Tag

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

Dimethylglycine oxidase (DMGO) is a covalent flavoenzyme from *Arthrobacter globiformis* 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. Recombinant DMGO originated from *Arthrobacter globiformis*, fused to His tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

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Amino acid Sequence

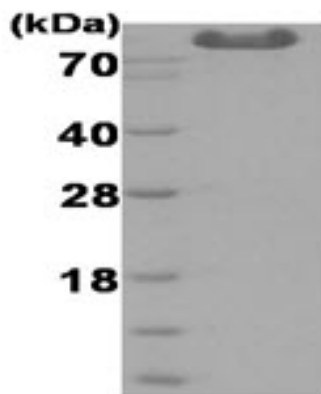
MGSSHHHHHH SSGLVPRGSH MASTPRIVII GAGIVGTNLA DELVTRGWNN ITVLDQGPLN MPGGSTSHAP GLVFQTNPSK
TMAFAKYTV EKLLSLTEDG VSCFNQVGGL EVATTETRLA DLKRKLG YAA AWGIEGRLLS PAECQELYPL LDGENILGGL
HVPSDGLASA ARAVQLLIK R TESAGVTYRG STTVTGIEQS GGRVTGVQTA DGVIPADIVV SCAGFWGAKI GAMIGMAVPL
LPLAHQYVKT TPVPAQQGRN DQPNGARLPI LRHQDQDLYY REHGDYRGIG SYAHRPMPVD VDTLGAYAPE TVSEHHMPSR
LDFTLEDFLP AWEATKQLLP ALADSEIEDG FNGIFSFTPD GGPLLGESKE LDGFYVAEAV WVTHSAGVAK AMAELLTGR
SETDLGECDI TRFEDVQLTP EYVSETSQQN FVEIYDVLHP LQPRLSPRNL RVSPFHARHK ELGAFFLEAG GWERPYWFEA
NAALLKEMPA EWLPPARDAW SGMFSSPIAA AEAWKTRTAV AMYDMTPLKR LEVSGPGALK LLQELTTADL AKKPGAVTYT
LLLDHAGGVR SDITVARLSE DTFQLGANGN IDTAYFERAA RHQTQSGSAT DWVQVRDTTG GTCCIGLWGP LARDLVSKVS
DDDFTNDGLK YFRAKNVIG GIPVTAMRLS YVGELGWELY TSADNGQRLW DALWQAGQPF GVIAAGRAAF SSLRLEKGYR
SWGTDMTTEH DPFEAGLGFA VKMAKESFIG KGALEGRTEE ASARLRCLT IDDGSRIVLG KEPVFYKEQA VGYVTSAAYG
YTVAKPIAYS YLPGTVSVGD SVDIEYFGRR ITATVTEDPL YDPKMTRLRG

General References

Rolandas Meskys., et al: Eur. J. Biochem(2001) 268:3390-3398
Basran J., et al, Biochemistry. (2006) 45:11151-61

DATA

SDS-PAGE



15% SDS-PAGE (3ug)

3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.