

Recombinant human Monoglyceride Lipase/MGLL protein

Catalog Number: ATGP3430

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-313aa

UniProt No.

Q99685

NCBI Accession No.

NP_009214

Alternative Names

Monoglyceride lipase, Hu-K5, HuK5, MAGL, MGL, Lysophospholipase homolog, Lysophospholipase-like, Monoacylglycerol lipase

PRODUCT SPECIFICATION

Molecular Weight

36.4 kDa (333aa) confirmed by MALDI-TOF

Concentration

0.5mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

Purity

> 85% by SDS-PAGE

Biological Activity

Specific activity is >170unit/mg, and is defined as the amount of enzyme that hydrolyze 1.0 umole of p-nitrophenyl butyrate to p-nitrophenol per minute at pH 7.5 at 25C.

Tag

His-Tag

Application

SDS-PAGE, Enzyme Activity

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

MGLL is membrane-associated member of the serine hydrolase superfamily. MGLL functions together with hormone-sensitive lipase (LIPE) to hydrolyze intracellular triglyceride stores in adipocytes and other cells to fatty

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acids and glycerol. MGLL may also complement lipoprotein lipase (LPL) in completing hydrolysis of monoglycerides resulting from degradation of lipoprotein triglycerides. It is most abundantly expressed in skeletal muscle and adipose tissue. Recombinant human MGLL protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography.

Amino acid Sequence

MGSSHHHHHH SGLVPRGSH METGPEDPSS MPEESSRRT PQSIPYQDLP HLVNADGQYL FCRYWKPTGT PKALIFVSHG
AGEHSGRYEE LARMLMGLDL LVFAHDHVGH GQSEGERMVV SDFHVFVRDV LQHVDMSMQKD YGPLPVFLG HSMGGAIL
TAAERPGHFA GMVLISPLVL ANPESATTFK VLAACKVLNLV LPNLSLGPID SSVLSRNKTE VDIYNSDPLI CRAGLKVCFG
IQLLNAVSRV ERALPKLTVP FLLQGSADR LCDSKGAYLL MELAKSQDKT LKIYEGAYHV LHKELPEVTN SVFHEINMWV
SQRTATAGTA SPP

General References

Cravatt BF., et al. (2010) *Cell*. 140(1):49-61.

Lambert DM., et al (2010) *Chembiochem*.11(2):218-27.

DATA

SDS-PAGE

(kDa)**70**
57
40
28
18
13.5
8.5

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

15% SDS-PAGE (3ug)