Recombinant human Glutathione synthetase/GSS protein

Catalog Number: ATGP0776

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-474aa

UniProt No.
P48637

NCBI Accession No.
NP_000169

Alternative Names
Glutathione synthetase, GSHS, GSH synthetase

PRODUCT SPECIFICATION

Molecular Weight
54.5 kDa (494aa) confirmed by MALDI-TOF

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% 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
Glutathione synthetase, also known GSS, is the second enzyme in the glutathione biosynthesis pathway. It catalyses the condensation of gamma-glutamylcysteine and glycine, to form glutathione. Defects in GSS are the cause of glutathione synthetase deficiency (GSS deficiency) ; also known as 5-oxoprolinuria or pyroglutamic aciduria. It is a severe form characterized by an increased rate of hemolysis and defective function of the central nervous system. Recombinant human GSS protein, 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

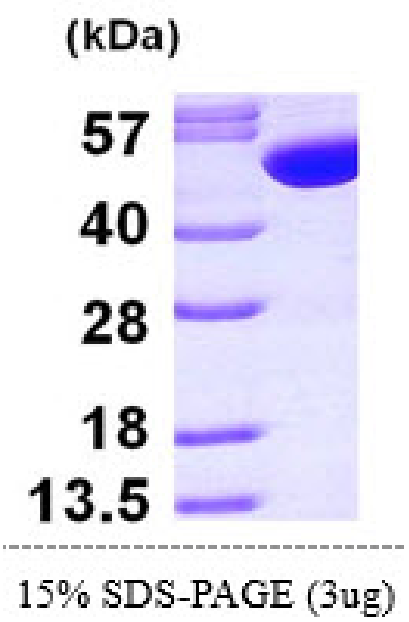
MGSSHHHHHH SSGLVPRGSH MATNWGSLLQ DKQQLEELAR QAVDRALAEG VLLRTSQEPT SSEVVSYAPF TLFPSLVPSA LLEQAYAVQM DFNLLVDAVS QNAAFLEQTL SSTIKQDDFT ARLFDIHKQV LKEGIAQTVF LGLNRSDYMF QRSADGSPAL KQIEINTISA SFGGLASRTP AVHRHVLSVL SKTKEAGKIL SNNPSKGLAL GIAKAWELYG SPNALVLLIA QEKERNIFDQRAIENELLAR NIHVIRRTFE DISEKGSLDQ DRRLFVDGQE IAVVYFRDGY MPRQYSLQNW EARLLLERSH AAKCPDIATQ LAGTKKVQQE LSRPGMLEML LPGQPEAVAR LRATFAGLYS LDVGEEGDQA IAEALAAPSR FVLKPQREGG GNNLYGEEMV QALKQLKDSE ERASYILMEK IEPEPFENCL LRPGSPARVV QCISELGIFG VYVRQEKTLV MNKHVGHLLR TKAIEHADGG VAAGVAVLDN PYPV

General References

Polekhina G., et al. (1999) EMBO J. 18:3204-3213.
Huanq Z A., et al. (2000) Biochim Biophys Acta. 1493:48-55.

DATA

SDS-PAGE



15% SDS-PAGE (3ug)

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