

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

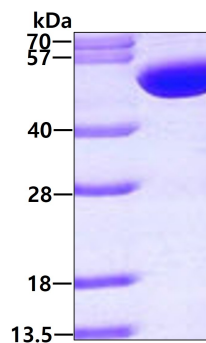
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QRSADGSPAL KQIEINTISA SFGGLASRTP AVHRHVLSVL SKTKEAGKIL SNNPSKGLAL GIAKAWELYG SPNALVLLIA
QEKERNIFDQRAIENELLAR NIHVIRRTFE DISEKGLDQ DRRLFVDGQE IAVVYFRDGY MPRQYSLQNW EARLLERSH
AAKCPDIATQ LAGTKKVQQE LSRPGMLEML LPGQPEAVAR LRATFAGLYS LDVGEEGDQA IAEALAAPSR FVLKPQREGG
GNNLYGEEEMV QALKQLKDSE ERASYILMEK IEPEPFENCL LRPGSPARVV QCISELGIFG VYVRQEKTIV MNKHVGHLLR
TKAIEHADGG VAAGVAVLND 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



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