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AR09715PU-L Human Glutathione synthetase (1-474, His-tag) - Purified

Alternate names: GSH synthetase, GSS, Glutathione synthase

Quantity: 0.5 mg

Concentration: 1.0 mg/ml (determined by Bradford assay)

Background: 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.

Uniprot ID: P48637

NCBI: NP_000169

GeneID: 2937

Species: Human

Source: E. coli

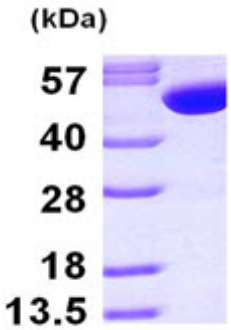
Format:
State: Liquid purified protein
Purity: >95%
Buffer System: 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol

Description: Recombinant human GSS protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
AA Sequence:
MGSSHHHHQH 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
Molecular weight: 54.5 kDa (494aa) confirmed by MALDI-TOF

Storage: Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

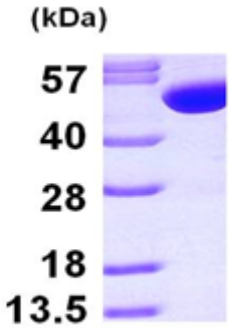
General Readings: Huanq Z A., et al. (2000) Biochim Biophys Acta. 1493:48-55.

Pictures:



15% SDS-PAGE (3ug)

Recombinant human GSS, 1- 474 aa, His-tagged



15% SDS-PAGE (3ug)