
Product Data Sheet

Product Name: THG1L Human
 Cat. No.: GP22294
 Batch No.: 1

Product Data

Purity	>98%	Source	E.coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	tRNA-histidine guanylyltransferase 1-like (<i>S. cerevisiae</i>); Interphase cytoplasmic foci protein 45; probable tRNA(His) guanylyltransferase; induced by high glucose-1; FLJ11601; FLJ20546; ICF45; IHG-1; EC 2.7.7.79; EC 2.7.7.6.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MGSMASKFE YVRDFEADDT CLAHCWVVVR LDGRNFHRFA EKHNFAKPND SRALQLMTKC AQTMEELED IVIAYGQSDE YSFVFKRKTN WFKRRASKFM THVASQFASS YVFYWRDYFE DQPLLYPPGF DGRVVVYPSN QTLKDYLSWR QADCHINNLY NTVFWALIQQ SGLTPVQAQG RLQGTLAADK NEILFSEFNI NYNNELPMYR KGTVLIWQKV DEVMTKEIKL PTEMEGKKMA VTRTRTKPVP LHCDIIGDAF WKEHPEILDE DS.		
Formulation	The THG1L solution (0.5mg/1ml) contains 20mM Tris-HCl buffer (pH 8.0), 100mM NaCl, 1mM DTT and 20% glycerol.		

Introduction

Probable tRNA (His) guanylyltransferase (THG1L) is a member of the tRNA (His) guanylyltransferase family. THG1L which is localized to the cytoplasm also found adjacent to the nuclear membrane and expressed in various tissues, including liver and lung. THG1L is expressed in a cell cycle-dependent manner and may be involved in cell cycle progression and cell proliferation. THG1L adds a GMP to the 5'-end of tRNA(His) after transcription and RNase P cleavage. This step is vital for accurate recognition of the tRNA and for the fidelity of protein synthesis. Upon DNA damage, THG1L is phosphorylated, presumably by ATM or ATR.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer

Caution: Product has not been fully validated for medical applications. For research use only.

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periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

THG1L Human Recombinant produced in E. coli is a single polypeptide chain containing 292 amino acids (30-298) and having a molecular mass of 34.0 kDa. THG1L is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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