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AR09329PU-N Human Thymidylate synthase (TS) (1-313, His-tag) - Purified

Alternate names: OK/SW-cl.29, TSase, TYMS

Quantity: 0.1 mg

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

Background: Thymidylate synthase is an intracellular enzyme critical for de novo synthesis of DNA. This function maintains the dTMP(thymidine-5-prime monophosphate) pool critical for DNA replication and repair. In cancer, expression of this protein is often elevated and becomes further elevated as a result of treatment with the most commonly used chemotherapeutic, 5-fluorouracil (5-FU). Resistance or lack of response to 5-FU is attributed to the elevation of thymidylate synthase activity.

Uniprot ID: P04818

NCBI: NP_001062

GeneID: 7298

Species: Human

Source: E. coli

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

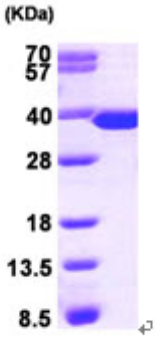
Description: Recombinant Human Thymidylate synthase protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
AA Sequence:
MGSSHHHHHH SSGLVPRGSH MPVAGSELPR RPLPPAAQER DAEPRPPHGE LQYLGQIQHI
LRCGVRKDDR TGTGTLSVFG MQARYSLRDE FPLLTTKRVF WKGVLEELLW FIKGSTNAKE
LSSKGVKIWD ANGSRDFLDS LGFSTREEGD LGPVYGFQWR HFGAEYRDME SDYSGQGVDQ
LQRVIDTIKT NPDDRRIIMC AWNPRDLPLM ALPPCHALCQ FYVVNSELSC QLYQRSGDMG
LGVPFNIASY ALLTYMIAHI TGLKPGDFIH TLGDAHIYLN HIEPLKIQLQ REPRPFPKLR
ILRKVEKIDD FKAEDFQIEG YNPHPTIKME MAV
Molecular weight: 37.8 kDa (333 aa)

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:
Chiu TH., et al. (2009) Anticancer Res. 29(11):4503-11.
Pena MM., et al. (2009) J Biol Chem. 284(46):31597-607.

Pictures:

Recombinant human Thymidylate synthase (1-313 aa), His-tagged: 15% SDS-PAGE (3 µg)



15% SDS-PAGE (3ug)