

## Product datasheet for AR09329PU-L

## OriGene Technologies, Inc.

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## Thymidylate synthase (TS) (1-313, His-tag) Human Protein

**Product data:** 

**Product Type:** Recombinant Proteins

**Description:** Thymidylate synthase (TS) (1-313, His-tag) human recombinant protein, 0.5 mg

Species: Human
Expression Host: E. coli

**Expression cDNA Clone** 

or 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

Tag: His-tag
Predicted MW: 37.8 kDa
Concentration: lot specific

Purity: >95% SDS - PAGE

**Buffer:** Presentation State: Purified

State: Liquid purified protein

Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 1 mM DTT, 10% glycerol

**Preparation:** Liquid purified protein

**Protein 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.

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.

**Stability:** Shelf life: one year from despatch.

RefSeq: <u>NP 001062</u>

**Locus ID:** 7298

**UniProt ID:** P04818, Q53Y97

Cytogenetics: 18p11.32

**Synonyms:** HST422; TMS; TS





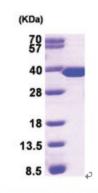
**Summary:** 

Thymidylate synthase catalyzes the methylation of deoxyuridylate to deoxythymidylate using, 10-methylenetetrahydrofolate (methylene-THF) as a cofactor. This function maintains the dTMP (thymidine-5-prime monophosphate) pool critical for DNA replication and repair. The enzyme has been of interest as a target for cancer chemotherapeutic agents. It is considered to be the primary site of action for 5-fluorouracil, 5-fluoro-2-prime-deoxyuridine, and some folate analogs. Expression of this gene and that of a naturally occurring antisense transcript, mitochondrial enolase superfamily member 1 (GeneID:55556), vary inversely when cell-growth progresses from late-log to plateau phase. Polymorphisms in this gene may be associated with etiology of neoplasia, including breast cancer, and response to chemotherapy. [provided by RefSeq, Aug 2017]

**Protein Families:** Druggable Genome

**Protein Pathways:** Metabolic pathways, One carbon pool by folate, Pyrimidine metabolism

## **Product images:**



15% SDS-PAGE (3ug)