

# Recombinant human TPMT protein

Catalog Number: TPM0701

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-245aa

### UniProt No.

Q9BS45

### NCBI Accession No.

AAH05339

### Alternative Names

Thiopurine S-methyltransferase, Thiopurine S-methyltransferase, TPMT, Thiopurine S-methyltransferase HGNC:12014, S adenosyl L methionine thiopurine S methyltransferase, Thiopurine methyltransferase, Thiopurine S methyltransferase.

## PRODUCT SPECIFICATION

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### Molecular Weight

28 kDa (245aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.2mM PMSF, 2mM EDTA

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Tag

Non-Tagged

### 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

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### Description

TPMT, thiopurine S-methyltransferase, is a cytosolic enzyme that metabolizes thiopurine drugs via S-adenosyl-L-methionine as the S-methyl donor and S-adenosyl-L-homocysteine as a byproduct. Thiopurine drugs such as 6-

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mercaptapurine and azathioprine are used as chemotherapeutic agents. TPMT activity exhibits autosomal codominant genetic polymorphism, and patients inheriting TPMT-deficiency are at high risk of potentially fatal hematopoietic toxicity. Recombinant human TPMT was expressed in *E. coli* and purified by using conventional chromatography techniques.

## Amino acid Sequence

MDGTRTSLDI EEYSDTEVQK NQVLTLEEWQ DKWVNGKTAF HQEQGHQLLK KHLDTFLKGG SGLRVFFPLC GKAVEMKWFA  
DRGHSVVGVE ISELGIQEFF TEQNLSYSEE PITEIPGTKV FKSSSGNISL YCCSIFDLPR TNIGKFDMIW DRGALVAINP  
GDRKCYADTM FLLGKKFQY LLCVLSYDPT KHPGPPFYVP HAEIERLFGK ICNIRRLEKV DAFEERHKSW GIDCLFEKLY LLTEK

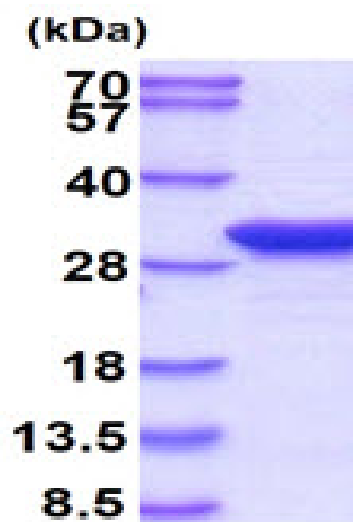
## General References

Tai HL., et al. (1997) Proc Natl Acad Sci uSA. 94:6444-9.

Odani S., et al.(2001) J Biochem. 129(2):213-9.

## DATA

### SDS-PAGE



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

15% SDS-PAGE (3ug)