

## DTYMK recombinant protein

DTYMK, Active

|                              |                                 |
|------------------------------|---------------------------------|
| CATALOG #<br><b>AAA73426</b> | HOST<br><b>Sf9 insect cells</b> |
|------------------------------|---------------------------------|

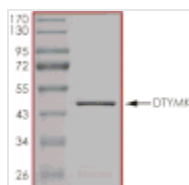
### PRODUCT SYNONYMS

DTYMK; Active; CDC8; PP3731; TMPK; TYMK; deoxythymidylate kinase; DTYMK recombinant protein

### PRODUCT SPECIFICATIONS

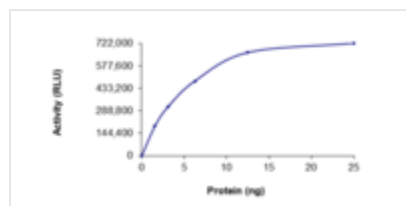
|                         |                                                                                                                                                                                                                                                |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | Sf9 insect cells                                                                                                                                                                                                                               |
| Form/Format             | Recombinant protein stored in 50mM Tris-HCl, pH7.5, 300mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 25% glycerol.                                                                                                                        |
| Tag                     | GST                                                                                                                                                                                                                                            |
| Species                 | Human                                                                                                                                                                                                                                          |
| Dry Ice Note            | The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.                                                                                                                                             |
| Preparation and Storage | Store product at -70 degree C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. |

### IMAGES



#### SDS-PAGE

Purity: sample purity data. For lot-specific data please refer to the lot-specific datasheet.



#### Activity

Specific Activity : Sample activity data. For lot specific data please refer to the specific lot datasheet.

### ADDITIONAL INFORMATION

|                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for DTYMK recombinant protein | Recombinant human DTYMK (2-end) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag. The gene accession number is NM_012145.<br>DTYMK belongs to a family of thymidylate kinase proteins (1). DTYMK catalyzes phosphorylation of deoxy-TMP to the corresponding phosphate in the presence of ATP and magnesium. This enzyme is essential for cellular DNA synthesis and is an important intermediate enzyme in the pathway of many pyrimidine analog drugs (2). Elevated levels of dTMP have been correlated with poor survival in lung adenocarcinomas hence it is a potential anticancer therapeutic target (3). |
| Product Categories/Family for DTYMK recombinant protein   | Protein Kinases; Angiogenesis; Apoptosis/Autophagy; Cancer; Cardiovascular Disease; Cell Cycle; Cellular Stress; Inflammation; Metabolic Disorder; Neurobiology                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## References

1. Su, J.Y. et al: Molecular cloning and expression of the human deoxythymidylate kinase gene in yeast. Nucleic Acids Res. 1991; 19(4): 823-827.
2. Huang, S. et al: Human dTMP Kinase: Gene expression and enzymatic activity coinciding with cell cycle progression and cell growth. DNA and Cell Biology. 1994; 13(5):461-471.
3. Liu, Y. et al: Metabolic and functional genomic studies identify deoxythymidylate kinase as a target in LKB1-mutant lung cancer. Cancer Discov. 2013; 3(8):870-879.

## NCBI AND UNIPROT INFORMATION

NCBI GenBank Nucleotide #

[NM\\_012145](#)

Molecular Weight

approx. MW: 50kDa

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/dtymk-recombinant-protein-sf9-insect-cells/73426>