

# Bifunctional dihydrofolate reductase-thymidylate synthase (DRTS), Recombinant Protein

Cat *RP10433*

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## Species

Zea mays (Maize)

## Full Product Name

Recombinant Zea mays Bifunctional dihydrofolate reductase-thymidylate synthase (DRTS), partial

## Product Gene Name

DRTS recombinant protein

## Purity

Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)

## Format

Lyophilized or liquid (Format to be determined during the manufacturing process)

## Host

E Coli or Yeast or Baculovirus or Mammalian Cell

## Molecular Weight

58,966 Da

## Storage

Store at -20°C. For long-term storage, store at -20°C or -80°C. Store working aliquots at 4°C for up to one week. Repeated freezing and thawing is not recommended.

## NCBI Accession #

NP\_001104916.1

## NCBI GI #

162464289

## NCBI GenBank Nucleotide #

NM\_001111446.1

## NCBI GeneID

541707

## NCBI Official Symbol

DRTS

## NCBI Official Synonym Symbols

DHFR-TS; GRMZM2G005990

## NCBI Protein Information

bifunctional dihydrofolate reductase-thymidylate synthase

## UniProt Gene Name

DRTS

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**FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY**

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## UniProt Synonym Gene Names

DHFR-TS

## UniProt Protein Name

Bifunctional dihydrofolate reductase-thymidylate synthase

## UniProt Primary Accession #

O81395

## UniProt Related Accession #

O81395

## UniProt Comments

Bifunctional enzyme. Involved in de novo dTMP biosynthesis. Key enzyme in folate metabolism. Can play two different roles depending on the source of dihydrofolate: de novo synthesis of tetrahydrofolate or recycling of the dihydrofolate released as one of the end products of the TS catalyzed reaction. Catalyzes an essential reaction for de novo glycine and purine synthesis, DNA precursor synthesis, and for the conversion of dUMP to dTMP .

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