

DTYMK (FL-212): sc-135134

BACKGROUND

DTYMK (deoxythymidylate kinase (thymidylate kinase)), also known as CDC8, TMPK, TYMK or dTMP kinase, is a 212 amino acid protein that belongs to the thymidylate kinase family and is involved in pyrimidine metabolism. Specifically, DTYMK catalyzes the ATP-dependent conversion of dTMP (deoxythymidine monophosphate) to dTDP (deoxythymidine diphosphate), which then functions as one of the four nucleotides in DNA. Via its role in the catalytic creation of dTDP, DTYMK plays an important role in the pathway of DNA synthesis and is thought to be involved in cell cycle progression and cell growth. DTYMK expression levels peak during the S phase (synthesis phase) of the cell cycle, further supporting the role of DTYMK in DNA synthesis.

REFERENCES

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- Van Rompay, A.R., et al. 2000. Phosphorylation of nucleosides and nucleoside analogs by mammalian nucleoside mono-phosphate kinases. *Pharmacol. Ther.* 87: 189-198.
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CHROMOSOMAL LOCATION

Genetic locus: DTYMK (human) mapping to 2q37.3; Dtymk (mouse) mapping to 1 D.

SOURCE

DTYMK (FL-212) is a rabbit polyclonal antibody raised against amino acids 1-212 representing full length DTYMK of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

DTYMK (FL-212) is recommended for detection of DTYMK of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DTYMK siRNA (h): sc-94639, DTYMK siRNA (m): sc-143184, DTYMK shRNA Plasmid (h): sc-94639-SH, DTYMK shRNA Plasmid (m): sc-143184-SH, DTYMK shRNA (h) Lentiviral Particles: sc-94639-V and DTYMK shRNA (m) Lentiviral Particles: sc-143184-V.

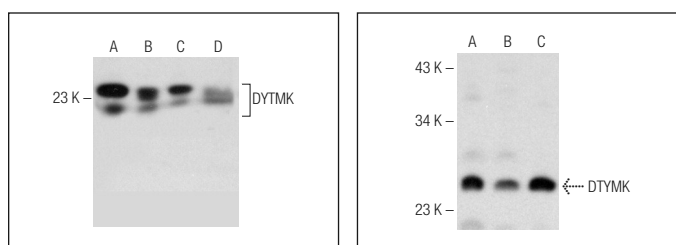
Molecular Weight of DTYMK: 24 kDa.

Positive Controls: HeLa cell lysate: sc-2200, K-562 cell lysate: sc-2203 or MOLT-4 cell lysate: sc-2233.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



DTYMK (FL-212): sc-135134. Western blot analysis of DTYMK expression in LNCaP (A), MDA-MB-231 (B), ES-2 (C) and Hep G2 (D) whole cell lysates.

DTYMK (FL-212): sc-135134. Western blot analysis of DTYMK expression in HeLa (A), K-562 (B) and MOLT-4 (C) whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

MONOS
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Try **DTYMK (B-8): sc-365925**, our highly recommended monoclonal alternative to DTYMK (FL-212).