

KD-Validated Anti-Thymidine Kinase 1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody Catalog # AGI1431

Specification

KD-Validated Anti-Thymidine Kinase 1 Rabbit Monoclonal Antibody - Product Information

Application WB, FC, ICC
Primary Accession P04183
Reactivity Human
Clonality Monoclonal
Isotype Rabbit IgG

Calculated MW Predicted, 25 kDa; observed, 25 kDa KDa

Gene Name Tk

Aliases TK1; Thymidine Kinase 1; Thymidine

Kinase, Cytosolic; Cytosolic Thymidine Kinase; EC 2.7.1.21; Epididymis Secretory Sperm Binding Protein; Thymidine Kinase

1. Soluble: TK2

Immunogen A synthesized peptide derived from human

Thymidine Kinase 1

KD-Validated Anti-Thymidine Kinase 1 Rabbit Monoclonal Antibody - Additional Information

Gene ID **7083**

Other Names

Thymidine kinase, cytosolic, 2.7.1.21, TK1 (<a

href="http://www.genenames.org/cgi-bin/gene symbol report?hgnc id=11830"

target="_blank">HGNC:11830)

KD-Validated Anti-Thymidine Kinase 1 Rabbit Monoclonal Antibody - Protein Information

Name TK1 (HGNC:11830)

Function

Cell-cycle-regulated enzyme of importance in nucleotide metabolism (PubMed:9575153). Catalyzes the first enzymatic step in the salvage pathway converting thymidine into thymidine monophosphate (PubMed:22385435). Transcriptional regulation limits expression to the S phase of the cell cycle and transient expression coincides with the oscillation in the intracellular dTTP concentration (Probable). Also important for the activation of anticancer and antiviral nucleoside analog prodrugs such as 1-b-d-arabinofuranosylcytosine (AraC) and 3c- azido-3c-deoxythymidine (AZT) (PubMed:22385435).

Cellular Location

Cytoplasm.

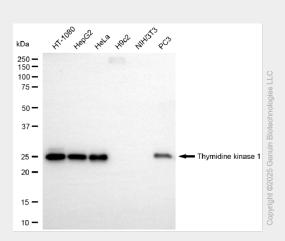


KD-Validated Anti-Thymidine Kinase 1 Rabbit Monoclonal Antibody - Protocols

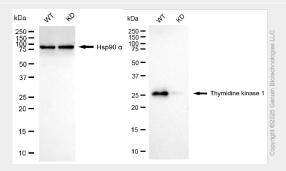
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

KD-Validated Anti-Thymidine Kinase 1 Rabbit Monoclonal Antibody - Images

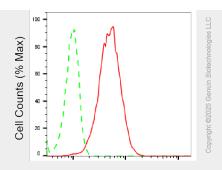


Western blotting analysis using anti-thymidine kinase 1 antibody (Cat#AGI1431). Total cell lysates (30 μ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-thymidine kinase 1 antibody (Cat#AGI1431, 1:20,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



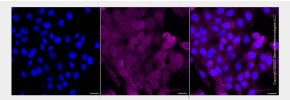
Western blotting analysis using anti-thymidine kinase 1 antibody (Cat#AGI1431). Thymidine kinase 1 expression in wild type (WT) and thymidine kinase 1 (TK1) knockdown (KD) HSHC cells with 20 μ g of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-thymidine kinase 1 antibody (Cat#AGI1431, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.





Thymidine kinase 1-Alexa Fluor® 647

Flow cytometric analysis of Thymidine kinase 1 expression in HepG2 cells using anti-Thymidine kinase 1 antibody (Cat#AGI1431, 1:2,000). Green, isotype control; red, Thymidine kinase 1.



Immunocytochemical staining of HepG2 cells with anti-Thymidine kinase 1 antibody (Cat#AGI1431, 1:1,000). Nuclei were stained blue with DAPI; Thymidine kinase 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 μ m.