10320 Camino Santa Fe, Suite G
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Anti-Thymidine Kinase 1 Rabbit Monoclonal Antibody
Catalog # ABO14258

Specification

Anti-Thymidine Kinase 1 Rabbit Monoclonal Antibody - Product Information

Application	**WB, IHC, IF, ICC, IP, FC**
Primary Accession	P04183
Host	**Rabbit**
Isotype	**Rabbit IgG**
Reactivity	**Human**
Clonality	**Monoclonal**
Format	**Liquid**

Description
Anti-Thymidine Kinase 1 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP, Flow Cytometry applications. This antibody reacts with Human.

Anti-Thymidine Kinase 1 Rabbit Monoclonal Antibody - Additional Information

Gene ID 7083

Other Names
Thymidine kinase, cytosolic, 2.7.1.21, TK1 (HGNC:11830)

Calculated MW
25469 MW KDa

Application Details
WB 1:5000-1:20000
IHC 1:50-1:200
ICC/IF 1:50-1:200
IP 1:20
FC 1:50

Subcellular Localization
Cytoplasm.

Contents
Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen
A synthesized peptide derived from human Thymidine Kinase 1

Purification
Affinity-chromatography

Storage	**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

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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.

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
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Thymidine Kinase 1 Rabbit Monoclonal Antibody - Images

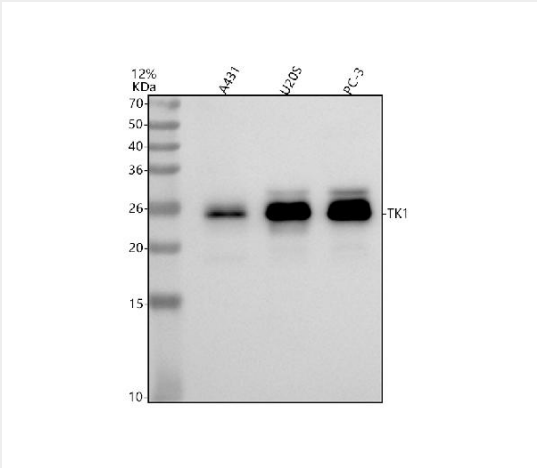

Figure 1. Western blot analysis of Thymidine Kinase 1 using anti-Thymidine Kinase 1 antibody (M04850).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

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Lane 1: human A431 whole cell lysates,
Lane 2: human U20S whole cell lysates,
Lane 3: human PC-3 whole cell lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Thymidine Kinase 1 antigen affinity purified monoclonal antibody (Catalog # M04850) at 1:5000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:500 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Thymidine Kinase 1 at approximately 25 kDa. The expected band size for Thymidine Kinase 1 is at 25 kDa.