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Anti-Cyclin T1 (RABBIT) Antibody
Cyclin T1 Antibody
Catalog # ASR3665

Specification

Anti-Cyclin T1 (RABBIT) Antibody - Product Information

Host	**Rabbit**
Conjugate	**Unconjugated**
Target Species	**Human**
Reactivity	**Rat, Human, Mouse**
Clonality	**Polyclonal**
Application	**WB, IHC, E, IP, I, LCI**
Application Note	**Anti-Cyclin T1 has been tested in western blot and immunohistochemistry. This antibody is suitable for ELISA, immunoprecipitation, and other immunological methods requiring high titer and specificity. Anti-Cyclin T1 is suitable for the detection by immunoblot of human, rat and mouse Cyclin T1. Use paraffin embedded tissue for immunohistochemistry. HeLa cells may be used as a positive control.**
Physical State	**Liquid (sterile filtered)**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**Cyclin T1 peptide corresponding to an internal region of the human protein conjugated to Keyhole Limpet Hemocyanin (KLH).**
Preservative	**0.01% (w/v) Sodium Azide**

Anti-Cyclin T1 (RABBIT) Antibody - Additional Information

Gene ID 904

Other Names
904

Purity
This product was prepared from monospecific antiserum by delipidation and defibrination. Antiserum will specifically react with an 85 kDa cyclin T1 protein from human, rat and mouse tissue. No reaction was observed against other related cyclins. Cross reactivity with cyclin T1 from other species may also occur.

Storage Condition
Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-Cyclin T1 (RABBIT) Antibody - Protein Information

Name CCNT1

Function
Regulatory subunit of the cyclin-dependent kinase pair (CDK9/cyclin-T1) complex, also called positive transcription elongation factor B (P-TEFb), which facilitates the transition from abortive to productive elongation by phosphorylating the CTD (C-terminal domain) of the large subunit of RNA polymerase II (RNA Pol II) (PubMed:16109376, PubMed:16109377, PubMed:30134174, PubMed:35393539). Required to activate the protein kinase activity of CDK9: acts by mediating formation of liquid-liquid phase separation (LLPS) that enhances binding of P-TEFb to the CTD of RNA Pol II (PubMed:29849146, PubMed:35393539).

Cellular Location
Nucleus

Tissue Location
Ubiquitously expressed.

Anti-Cyclin T1 (RABBIT) 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-Cyclin T1 (RABBIT) Antibody - Images

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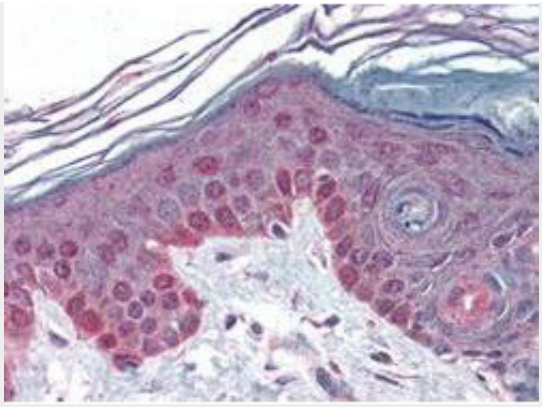

Rockland's Anti-Cyclin T1 antibody was diluted 1:500 to detect Cyclin T1 in human skin tissue. Tissue was formalin fixed and paraffin embedded. No pre-treatment of sample was required. The image shows the localization of antibody as the precipitated red signal, with a hematoxylin purple nuclear counter stain.

Anti-Cyclin T1 (RABBIT) Antibody - Background

Cyclin T1, together with the kinase CDK9, is a component of the transcription elongation factor P-TEFb which binds the human immunodeficiency virus type 1 (HIV-1) transactivator Tat. Tat stimulates human HIV-1 viral transcription elongation. This suggests that cyclin T1/cdk9(PITALRE) is one of the HIV-1 required host cellular cofactors generated during T cell activation. Cyclin T1/cdk9(PITALRE) is shown to interact with Tat to restore Tat activation in HeLa nuclear extracts depleted of P-TEFb. P-TEFb facilitates transcription by phosphorylating the carboxy-terminal domain (CTD) of RNA polymerase II. The cdk9(PITALRE) activity and cyclin T1 are essential for activation of transcription when tethered to the heterologous Rev response element RNA via the regulator of expression of virion Rev. Cyclin T1 is an exceptionally large cyclin and is therefore a candidate for interactions with regulatory proteins.