



Rabbit Anti-Cyclin T1 antibody

SL20531R

Product Name:	Cyclin T1
Chinese Name:	周期素T1抗体
Alias:	CCN T1; CCNT; CCNT 1; CCNT1; CCNT1_HUMAN; CDK9 associated C type protein; Cyc T1; Cyclin C related protein; cyclin T; cyclin T1; Cyclin T1b; Cyclin-T; cyclin-T1; CYCT 1; cycT1; HIVE1; Human immunodeficiency virus 1 expression; Human immunodeficiency virus type 1 (HIV 1) expression (elevated) 1; pTEFb subunit; Subunit of positive elongation transcription factor b.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Horse,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	81kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Cyclin T1:451-550/726
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	Preservative: 15mM Sodium Azide, Constituents: 1% BSA, 0.01M PBS, pH 7.4
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	This gene encodes a member of the highly conserved cyclin C subfamily. The encoded protein tightly associates with cyclin-dependent kinase 9, and is a major subunit of positive transcription elongation factor b (p-TEFb). In humans, there are multiple forms

of positive transcription elongation factor b, which may include one of several different cyclins along with cyclin-dependent kinase 9. The complex containing the encoded cyclin and cyclin-dependent kinase 9 acts as a cofactor of human immunodeficiency virus type 1 (HIV-1) Tat protein, and is both necessary and sufficient for full activation of viral transcription. This cyclin and its kinase partner are also involved in triggering transcript elongation through phosphorylation of the carboxy-terminal domain of the largest RNA polymerase II subunit. Overexpression of this gene is implicated in tumor growth. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2013]

Function:

Regulatory subunit of the cyclin-dependent kinase pair (CDK9/cyclin-T1) complex, also called positive transcription elongation factor B (P-TEFb), which is proposed to facilitate the transition from abortive to productive elongation by phosphorylating the CTD (carboxy-terminal domain) of the large subunit of RNA polymerase II (RNA Pol II). In case of HIV or SIV infections, binds to the transactivation domain of the viral nuclear transcriptional activator, Tat, thereby increasing Tat's affinity for the transactivating response RNA element (TAR RNA). Serves as an essential cofactor for Tat, by promoting RNA Pol II activation, allowing transcription of viral genes.

Subunit:

Cyclin-T1 is the predominant cyclin that associates with CDK9 to form a heterodimer called P-TEFb. P-TEFb forms a complex with AFF4/AF5Q31. Interacts with the transactivation region of HIV-1, HIV-2 and SIV Tat. Component of a complex which is at least composed of HTATSF1/Tat-SF1, P-TEFb complex, RNA pol II, SUPT5H, and NCL/nucleolin. Component of the 7SK snRNP complex at least composed of P-TEFb (composed of CDK9 and CCNT1/cyclin-T1), HEXIM1, HEXIM2, BCDIN3, SART3 proteins and 7SK and U6 snRNAs. Interacts with BRD4, probably to target chromatin binding. Interacts with MDFIC.

Subcellular Location:

Nucleus.

Tissue Specificity:

Ubiquitously expressed.

Similarity:

Belongs to the cyclin family. Cyclin C subfamily.

SWISS:

O60563

Gene ID:

904

Database links:

[Entrez Gene: 904](#) Human

[Entrez Gene: 12455](#) Mouse

[Entrez Gene: 315291](#) Rat

[Omim: 143055](#) Human

[SwissProt: O60563](#) Human

[SwissProt: Q9QWV9](#) Mouse

[Unigene: 279906](#) Human

[Unigene: 29941](#) Mouse

[Unigene: 86538](#) Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.