

CCNT1 antibody - N-terminal region

Rabbit Polyclonal Antibody Catalog # AI16181

Product Information

Application Primary Accession	WB <u>O60563</u>
Other Accession	<u>NM_001240</u> , <u>NP_001231</u>
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Dog, Guinea Pig, Horse, Bovine, Neisseria Gonorrhoeae
Predicted	Human, Mouse, Rat, Rabbit, Pig, Dog, Guinea Pig, Horse, Bovine, Neisseria Gonorrhoeae
Host	Rabbit
Clonality	Polyclonal
Calculated MW	80685

Additional Information

Gene ID	904
Alias Symbol Other Names	CCNT, CYCT1, HIVE1 Cyclin-T1, CycT1, Cyclin-T, CCNT1
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-CCNT1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	CCNT1 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

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: <u>16109376</u> , PubMed: <u>16109377</u> , PubMed: <u>30134174</u> , PubMed: <u>35393539</u>). 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: <u>29849146</u> , PubMed: <u>35393539</u>).

Nucleus

Tissue Location

Ubiquitously expressed.

Background

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.

References

Wei P.,et al.Cell 92:451-462(1998). Peng J.-M.,et al.Genes Dev. 12:755-762(1998). Wu X.,et al.Submitted (JUN-2007) to the EMBL/GenBank/DDBJ databases. Scherer S.E.,et al.Nature 440:346-351(2006). Parada C.A.,et al.EMBO J. 18:3688-3701(1999).

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