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CCNT1 Antibody (Center) Blocking peptide

Synthetic peptide
Catalog # BP10669c

Specification

CCNT1 Antibody (Center) Blocking peptide - Product Information

Primary Accession O60563

CCNT1 Antibody (Center) Blocking peptide - Additional Information

Gene ID 904

Other Names
Cyclin-T1, CycT1, Cyclin-T, CCNT1

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CCNT1 Antibody (Center) Blocking peptide - 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:35393539, PubMed:30134174). 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.

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CCNT1 Antibody (Center) Blocking peptide - Protocols

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

- Blocking Peptides

CCNT1 Antibody (Center) Blocking peptide - Images

CCNT1 Antibody (Center) Blocking peptide - Background

CCNT1 belongs to the highlyconserved cyclin family, whose members are characterized by adramatic periodicity in protein abundance through the cell cycle.Cyclins function as regulators of CDK kinases. Different cyclinsexhibit distinct expression and degradation patterns whichcontribute to the temporal coordination of each mitotic event. Thiscyclin tightly associates with CDK9 kinase, and was found to be amajor subunit of the transcription elongation factor p-TEFb. Thekinase complex containing this cyclin and the elongation factor caninteract with, and act as a cofactor of human immunodeficiencyvirus type 1 (HIV-1) Tat protein, and was shown to be bothnecessary and sufficient for full activation of viraltranscription. This cyclin and its kinase partner were also foundto be involved in the phosphorylation and regulation of thecarboxy-terminal domain (CTD) of the largest RNA polymerase IIsubunit.

CCNT1 Antibody (Center) Blocking peptide - References

Moiola, C., et al. Cell Cycle 9(15):3119-3126(2010)Schonichen, A., et al. Biochemistry 49(14):3083-3091(2010)Czudnochowski, N., et al. J. Mol. Biol. 395(1):28-41(2010)Kapasi, A.J., et al. J. Virol. 83(11):5904-5917(2009)Cho, S., et al. EMBO J. 28(10):1407-1417(2009)