

CCNT1 Antibody (Center) Blocking peptide
Synthetic peptide
Catalog # BP10669c**Specification**

CCNT1 Antibody (Center) Blocking peptide - Product InformationPrimary 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.

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 highly conserved cyclin family, whose members are characterized by a dramatic periodicity in protein abundance through the cell cycle. Cyclins function as regulators of CDK kinases. Different cyclins exhibit distinct expression and degradation patterns which contribute to the temporal coordination of each mitotic event. This cyclin tightly associates with CDK9 kinase, and was found to be a major subunit of the transcription elongation factor p-TEFb. The kinase complex containing this cyclin and the elongation factor can interact with, and act as a cofactor of human immunodeficiency virus type 1 (HIV-1) Tat protein, and was shown to be both necessary and sufficient for full activation of viral transcription. This cyclin and its kinase partner were also found to be involved in the phosphorylation and regulation of the carboxy-terminal domain (CTD) of the largest RNA polymerase II subunit.

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)