10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CTR9 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP8853c

Specification

CTR9 Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q6PD62

CTR9 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 9646

Other Names
RNA polymerase-associated protein CTR9 homolog, SH2 domain-binding protein 1, CTR9, KIAA0155, SH2BP1

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8853c was selected from the Center region of human CTR9. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

CTR9 Antibody (Center) Blocking Peptide - Protein Information

Name CTR9

Synonyms KIAA0155, SH2BP1

Function
Component of the PAF1 complex (PAF1C) which has multiple functions during transcription by RNA polymerase II and is implicated in regulation of development and maintenance of embryonic stem cell pluripotency. PAF1C associates with RNA polymerase II through interaction with POLR2A CTD non-phosphorylated and 'Ser-2'- and 'Ser- 5'-phosphorylated forms and is involved in transcriptional elongation, acting both independently and synergistically with TCEA1 and in cooperation with the DSIF complex and HTATSF1. PAF1C is required for transcription of Hox and Wnt target genes. PAF1C is involved in hematopoiesis and stimulates transcriptional activity of KMT2A/MLL1; it promotes leukemogenesis through association with KMT2A/MLL1-rearranged oncoproteins, such as KMT2A/MLL1-MLLT3/AF9 and KMT2A/MLL1-MLLT1/ENL. PAF1C is involved in

histone modifications such as ubiquitination of histone H2B and methylation on histone H3 'Lys-4' (H3K4me3). PAF1C recruits the RNF20/40 E3 ubiquitin-protein ligase complex and the E2 enzyme UBE2A or UBE2B to chromatin which mediate monoubiquitination of 'Lys-120' of histone H2B (H2BK120ub1); UB2A/B-mediated H2B ubiquitination is proposed to be coupled to transcription. PAF1C is involved in mRNA 3' end formation probably through association with cleavage and poly(A) factors. In case of infection by influenza A strain H3N2, PAF1C associates with viral NS1 protein, thereby regulating gene transcription. Required for mono- and trimethylation on histone H3 'Lys-4' (H3K4me3) and dimethylation on histone H3 'Lys-79' (H3K4me3). Required for Hox gene transcription. Required for the trimethylation of histone H3 'Lys-4' (H3K4me3) on genes involved in stem cell pluripotency; this function is synergistic with CXXC1 indicative for an involvement of the SET1 complex. Involved in transcriptional regulation of IL6-responsive genes and in JAK-STAT pathway; may regulate DNA-association of STAT3 (By similarity).

Cellular Location
Nucleus speckle {ECO:0000250|UniProtKB:Q62018}.

Tissue Location
Widely expressed..

CTR9 Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

CTR9 Antibody (Center) Blocking Peptide - Images

CTR9 Antibody (Center) Blocking Peptide - Background

CTR9 is a component of the PAF (polymerase-associated factor) complex which interacts with histone-modifying enzymes and RNA polymerase II and plays a role in a number of transcription-related processes. Recent studies show that CTR9 can regulate IL-6-responsive gene transcription by influencing histone methylation.

CTR9 Antibody (Center) Blocking Peptide - References

Lin,G.T., et.al., Chin J Physiol 51 (1), 32-41 (2008)