

# Mouse Ctr9 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AW5421

## Product Information

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<b>Application</b>	IF, IHC-P, WB
<b>Primary Accession</b>	<a href="#">Q62018</a>
<b>Other Accession</b>	<a href="#">Q6PD62</a>
<b>Reactivity</b>	Human, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	133408
<b>Isotype</b>	Rabbit IgG
<b>Antigen Source</b>	HUMAN

## Additional Information

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<b>Gene ID</b>	22083
<b>Antigen Region</b>	1022-1056
<b>Other Names</b>	RNA polymerase-associated protein CTR9 homolog, SH2 domain-binding protein 1, Tetratricopeptide repeat-containing, SH2-binding phosphoprotein of 150 kDa, TPR-containing, SH2-binding phosphoprotein of 150 kDa, p150TSP, Ctr9, Kiaa0155, Sh2bp1
<b>Dilution</b>	IF~~1:25 IHC-P~~1:100~500 WB~~1:1000
<b>Target/Specificity</b>	This Mouse Ctr9 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 1022-1056 amino acids from the C-terminal region of Mouse Ctr9.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	Mouse Ctr9 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	Ctr9
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<b>Synonyms</b>	Kiaa0155, Sh2bp1
<b>Function</b>	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. 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. Required for mono- and trimethylation on histone H3 'Lys-4' (H3K4me3) and dimethylation on histone H3 'Lys-79' (H3K4me3). Required for Hox gene transcription (By similarity). 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.
<b>Cellular Location</b>	Nucleus speckle.
<b>Tissue Location</b>	Widely expressed..

## Background

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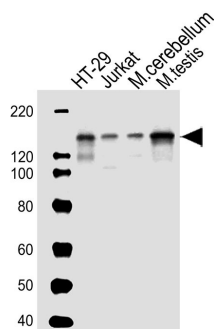
Component of the PAF1 complex (PAF1C) which has multiple functions during transcription by RNA polymerase II and is implicated in regulation of development and maintenance of embryonic stem cell pluripotency. PAF1C associates with RNA polymerase II through interaction with POLR2A CTD non-phosphorylated 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. 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. Required for mono- and trimethylation on histone H3 'Lys-4' (H3K4me3) and dimethylation on histone H3 'Lys-79' (H3K4me3). Required for Hox gene transcription (By similarity). 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.

## References

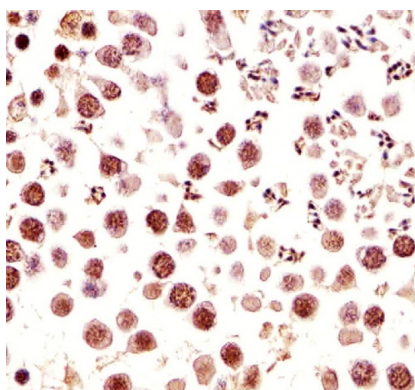
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- Malek S.N., et al. *J. Biol. Chem.* 271:6952-6962(1996).  
Carninci P., et al. *Science* 309:1559-1563(2005).  
Okazaki N., et al. *DNA Res.* 9:179-188(2002).

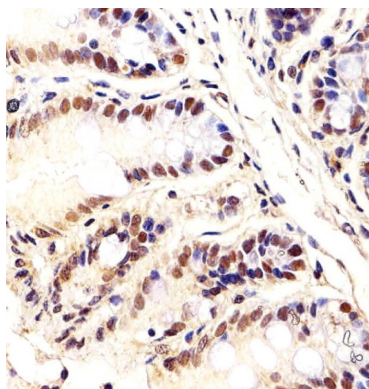
## Images



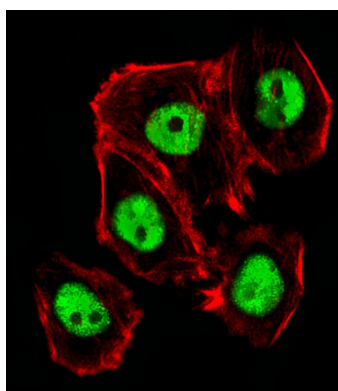
All lanes : Anti-Ctr9 Antibody (C-term) at 1:1000 dilution  
Lane 1: HT-29 whole cell lysates Lane 2: Jurkat whole cell lysates Lane 3: mouse cerebellum lysates Lane 4: mouse testis lysates Lysates/proteins at 20 µg per lane.  
Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 133 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemical analysis of paraffin-embedded M. testis section using Mouse Ctr9 Antibody (C-term)(Cat#AW5421). AW5421 was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



Immunohistochemical analysis of paraffin-embedded M. colon section using Mouse Ctr9 Antibody (C-term)(Cat#AW5421). AW5421 was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



Fluorescent image of A431 cells stained with Mouse Ctr9 Antibody (C-term)(Cat#AW5421). AW5421 was diluted at 1:25 dilution. An Alexa Fluor 488-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody (green). Cytoplasmic actin was counterstained with Alexa Fluor® 555 conjugated with Phalloidin (red).