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

CDC73 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP9181c

Specification

CDC73 Antibody (Center) - Product Information

Application	**IF, WB, IHC-P, FC,E**
Primary Accession	Q6P1J9
Other Accession	Q4V8C8, Q8JZM7, Q5ZLM0
Reactivity	**Human**
Predicted	**Chicken, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**60577**
Antigen Region	**132-161**

CDC73 Antibody (Center) - Additional Information

Gene ID 79577

Other Names
Parafibromin, Cell division cycle protein 73 homolog, Hyperparathyroidism 2 protein, CDC73, C1orf28, HRPT2

Target/Specificity
This CDC73 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 132-161 amino acids from the Central region of human CDC73.

Dilution
IF~~1:10~50
WB~~1:2000
IHC-P~~1:25
FC~~1:25

Format
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.

Storage
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.

Precautions
CDC73 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

CDC73 Antibody (Center) - Protein Information

Name CDC73

Synonyms C1orf28, HRPT2

Function Tumor suppressor probably involved in transcriptional and post-transcriptional control pathways. May be involved in cell cycle progression through the regulation of cyclin D1/PRAD1 expression. 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. Connects PAF1C with the cleavage and polyadenylation specificity factor (CPSF) complex and the cleavage stimulation factor (CSTF) complex, and with Wnt signaling. Involved in polyadenylation of mRNA precursors.

Cellular Location
Nucleus

Tissue Location
Found in adrenal and parathyroid glands, kidney and heart.

CDC73 Antibody (Center) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CDC73 Antibody (Center) - Images

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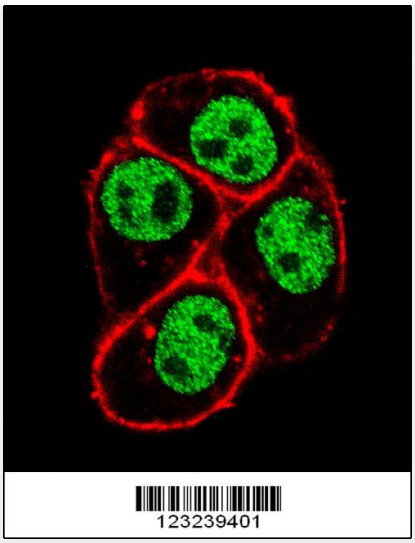
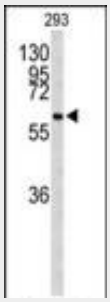
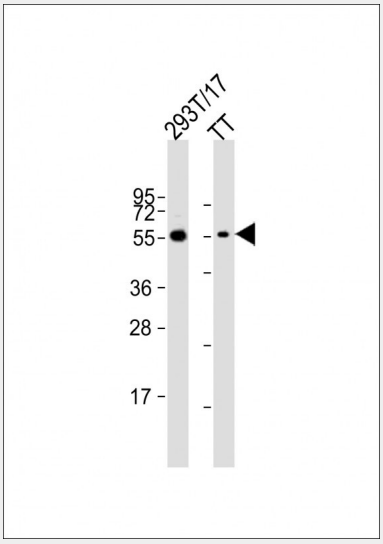


Confocal immunofluorescent analysis of CDC73 Antibody (Center)(Cat#AP9181c) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).



Western blot analysis of CDC73 Antibody (Center) (Cat. #AP9181c) in 293 cell line lysates (35ug/lane). CDC73 (arrow) was detected using the purified Pab.



All lanes : Anti-CDC73 Antibody (Center) at 1:2000 dilution Lane 1: 293T/17 whole cell lysate Lane 2: TT whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 61kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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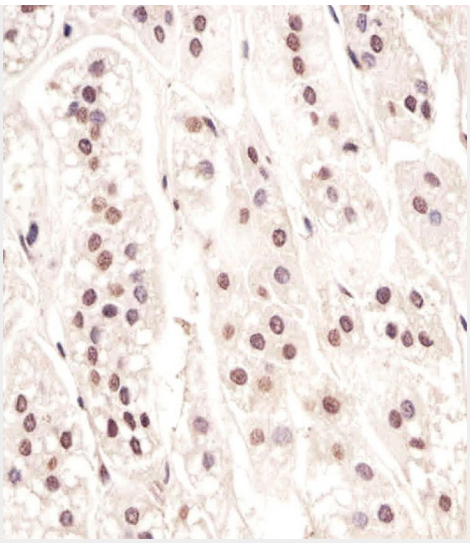
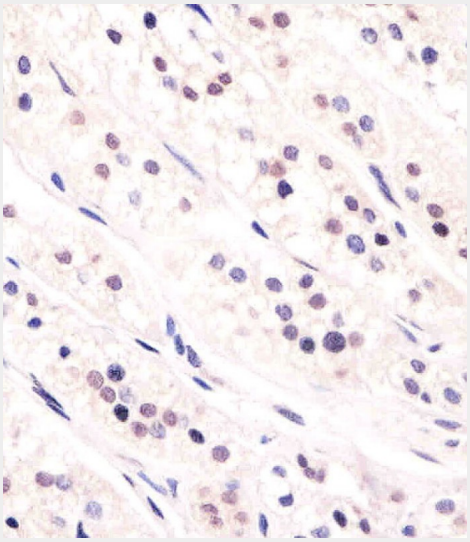


AP9181C staining CDC73 in human adrenal gland tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



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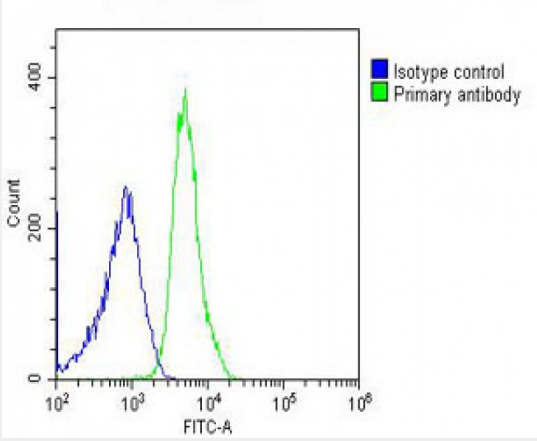
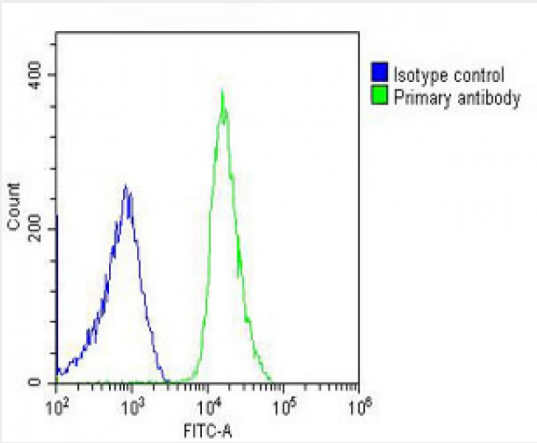


Overlay histogram showing U-2OS cells stained with AP9181C (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP9181C, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OH191631) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.



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CDC73 Antibody (Center) - Background

CDC73 encodes a tumor suppressor that is involved in transcriptional and post-transcriptional control pathways. The protein is a component of the the PAF protein complex, which associates with the RNA polymerase II subunit POLR2A and with a histone methyltransferase complex. This protein appears to facilitate the association of 3' mRNA processing factors with actively-transcribed chromatin.

CDC73 Antibody (Center) - References

Vierimaa,O., et.al., J. Endocrinol. Invest. 32 (6), 512-518 (2009)
Hahn,M.A., et.al., J. Endocrinol. 201 (3), 387-396 (2009)