

ARG59493 anti-CDC73 / Parafibromin antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes CDC73 / Parafibromin
Tested Reactivity	Hu
Predict Reactivity	Ms, Rat, Chk
Tested Application	FACS, ICC/IF, IHC-P
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	CDC73 / Parafibromin
Species	Human
Immunogen	KLH-conjugated synthetic peptide between aa. 132-161 of Human CDC73 / Parafibromin.
Conjugation	Un-conjugated
Alternate Names	Hyperparathyroidism 2 protein; HRPT2; HRPT1; HYX; Cell division cycle protein 73 homolog; HPTJT; Parafibromin; C1orf28; FIHP

Application Instructions

Application table	Application	Dilution
	FACS	1:25
	ICC/IF	1:10 - 1:50
	IHC-P	1:25
Application Note	IHC-P: Antigen Retrieval: Heat mediated was performed in Citrate buffer (pH 6.0). * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

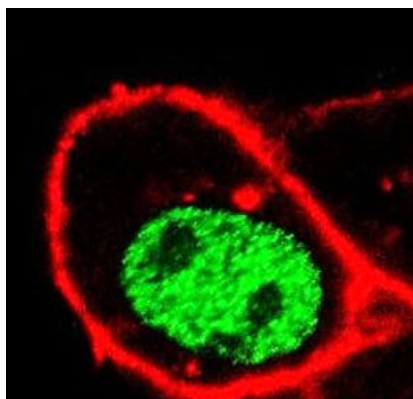
Properties

Form	Liquid
Purification	Purification with Protein A and immunogen peptide.
Buffer	PBS and 0.09% (W/V) Sodium azide.
Preservative	0.09% (W/V) Sodium azide.
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

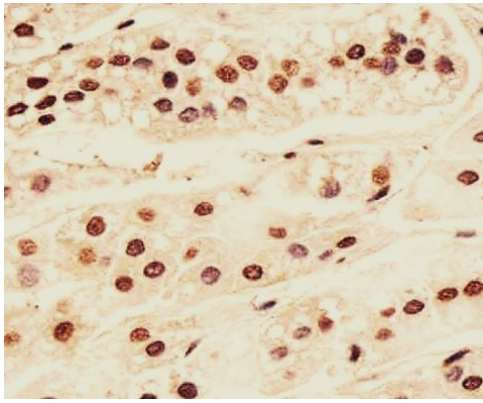
Gene Symbol	CDC73
Gene Full Name	cell division cycle 73
Background	This gene encodes a tumor suppressor that is involved in transcriptional and post-transcriptional control pathways. The protein is a component of the the PAF protein complex, which associates with the RNA polymerase II subunit POLR2A and with a histone methyltransferase complex. This protein appears to facilitate the association of 3' mRNA processing factors with actively-transcribed chromatin. Mutations in this gene have been linked to hyperparathyroidism-jaw tumor syndrome, familial isolated hyperparathyroidism, and parathyroid carcinoma. [provided by RefSeq, Jul 2009]
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. [UniProt]
Calculated Mw	61 kDa
PTM	Phosphorylated. Dephosphorylated by PTPN11. [UniProt]
Cellular Localization	Nucleus. [UniProt]

Images



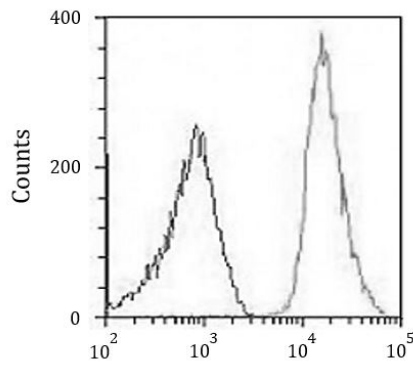
ARG59493 anti-CDC73 / Parafibromin antibody ICC/IF image

Immunofluorescence: HeLa cells stained with ARG59493 anti-CDC73 / Parafibromin antibody (green). Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).



ARG59493 anti-CDC73 / Parafibromin antibody IHC-P image

Immunohistochemistry: Paraformaldehyde-fixed and paraffin-embedded Human adrenal gland blocked with 3% BSA for 0.5 hour at RT. Antigen Retrieval: Heat mediated was performed in Citrate buffer (pH 6.0). Samples were incubated with ARG59493 anti-CDC73 / Parafibromin antibody at 1:25 for 1 hours at 37°C.



ARG59493 anti-CDC73 / Parafibromin antibody FACS image

Flow Cytometry: U-2OS cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% BSA to block non-specific protein-protein interactions followed by ARG59493 anti-CDC73 / Parafibromin antibody (right histogram) at 1:25 dilution for 60 min at 37°C, followed by DyLight®488 labelled secondary antibody. Isotype control antibody (left histogram) was Rabbit IgG (1 µg/10⁶ cells) used under the same conditions. Acquisition of > 10000 events was performed.