

## Product datasheet for **RN213220**

### **Cdc73 (NM\_001024769) Rat Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cdc73 (NM_001024769) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Cdc73
Synonyms:	Hrpt2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >RN213220 representing NM\_001024769  
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGCGGACGTGCTCAGCGTCTCGACAGTACAACATCCAGAAGAAGGAGATTGTGGTCAAGGGGATG  
AAGTGATCTTCGGGAGTTCTCCTGGCCCAAGAATGTGAAGACCAACTATGTAGTTTGGGGACCGGAAA  
GGAAGGCCAACCCAGAGAATACTACACATTGGATTCTATCCTATTTCTCCTTAATAATGTGCACCTTTG  
CATCCTGTTTATGTCGACGTGCAGCTACTGAAAAATTCCTGTGGTTAGAAGACCTGACAGAAAGGATC  
TCCTTGGATATCTCAATGGGGAAGCATCAACATCAGCAAGCATAGACAGGAGTGCCTCCCTGGAAAATAGG  
TCTTCAGCGTCTACTCAAGTCAAAGAGCTGCAGATGAAGTTTTAGCAGAAGCAAAGAAACCACGAATT  
GAGGATGAAGAGTGTGTGCGCTTGATAAAGAGAGATTGGCAGCCGTTTGAAGGCCATAAAGAAGGAA  
TCGTGCAGACTGAACAGATTAGGTCTTTATCTGAAGCCATGTTAGTGGAAAAATGCTGCAATCAAAGC  
CAAAATATGGCTAAGAAAAGATCTACTATCAAGACCGATCTAGATGATGATATAACTGCCCTTAAGCAG  
AGGAGTTTTGTGGATGCTGAGGTAGATGTGACCAGAGATATTGTCAGCAGAGAGAGAGTATGGCGGACAA  
GAACAACATCTTACAGAGCACAGGAAAGAATTTTTCAAAGAATTTTTGCAATCTTCAATCAGTAAA  
AGCCAGAGAAGAAGGGCGTGCCTCCCAACAACGGCCAGCTCCAAATGCAGCCCCTGTGGATCCTACATTG  
CGTACAAAACAGCCTATTCAGCTGCCTACAACAGATAGACCAAGAAAGATTCAAAGGCAAGAAAGAAA  
CGGAAGGTTTTAAGATCGATACTATGGGTACCTACCATGGCATGACGCTGAAATCTGTCACGGAAGGTGC  
ATCTGCCCGTAAGACTCAAACCTCTGCAGCCAGCCTGTACCTAGACCAGTGTCTCAAGCAAGACCTCCC  
CCAAATCAGAAGAAAGGGTCTCGAACACCCATCATTATTCTGTCAGTACCCTTCTTAATAACCA  
TGCTTAATGCAAAAGACCTTCTACAGGATCTGAAATTTGCCATCAGATGAAAAGAAGAAACAGGGATG  
TCAACGAGAAAAATGAAACACTAATACAGAGAAGAAAGACCAGATGCAACCTGGGGGCACAGCAATTAGT  
GTCACAGTCCCTTACAGAGTAGTAGACCAGCCTCTGAAGCTTATGCCTCAAGACTGGGATCGAGTCGTAG  
CTGTTTTGTACAAGTCTGCTTGGCAGTTCAAAGGTTGGCCATGGCTTCTACCTGATGGATCACCAGT  
TGACATATTTGCAAAAATTAAGCCTTCCATCTCAAGTATGATGAAGTTCGTCTAGATCCAAATGTTCAA  
AAATGGGATGTAAACAGTATTAGAATCAGCTATCATAAACGTCAATTTGGATAGACCAGTTTTCTTACGTT  
TCTGGGAAACATTGGATAGATACATGGTAAAGCACAAATCCCCTTGAGATTC**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-Mlul

**ACCN:** NM\_001024769

**Insert Size:** 1596 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_001024769.1](#), [NP\\_001019940.1](#)

**RefSeq Size:** 2101 bp

**RefSeq ORF:** 1596 bp

**Locus ID:** 304832

**UniProt ID:** [Q4V8C8](#)

**Cytogenetics:** 13q21

**Gene Summary:** 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. 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. 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 (By similarity). [UniProtKB/Swiss-Prot Function]