

## Product datasheet for **RC231456**

### CP110 (CCP110) (NM\_001199022) Human Tagged ORF Clone

#### Product data:

|                           |                                                                                |
|---------------------------|--------------------------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                                            |
| Product Name:             | CP110 (CCP110) (NM_001199022) Human Tagged ORF Clone                           |
| Tag:                      | Myc-DDK                                                                        |
| Symbol:                   | CP110                                                                          |
| Synonyms:                 | Cep110; CP110                                                                  |
| Mammalian Cell Selection: | Neomycin                                                                       |
| Vector:                   | pCMV6-Entry (PS100001)                                                         |
| E. coli Selection:        | Kanamycin (25 ug/mL)                                                           |
| ORF Nucleotide Sequence:  | >RC231456 representing NM_001199022<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**

ATGGAGGAGTATGAGAAGTTCTGTGAAAAAGTCTTGCCAGAATACAAGAAGCATCACTATCCACAGAGA  
GCTTTCTCCCTGCTCAGTCTGAAAGTATCTCACTTATTCGCTTTCATGGAGTGGTATCCTTTCTCCACT  
GCTTAACATTGAGAAAAGAAAGGAAATGCAACAAGAAAAGCAGAAAGCACTTGATGTAGAAGCAAGAAAG  
CAGGTTAACAGGAAGAAAGCTTTACTGACTCGTGTCCAGGAGATTCTTGACAATGTTAGGTTAGAAAAG  
CACCTAATGCCAGTGATTTTGATCAGTGGGAGATGGAACAGTTTACTCTAATTCAGAAGTCAGAACTT  
GAATGTTCTGCTACATTTCCAAATAGCTTTCCAAGCCATACGGAACACTCTACTGCAGCAAAGCTTGAT  
AAGATAGCTGGGATTTTGCCATTGGATAATGAGGACCAATGTAAACTGATGGAATAGACTTAGCTAGAG  
ATTCAGAAGGATTTAATTCTCCGAAGCAATGTGATAGTTCCAATATTAGTCATGTAGAAAATGAAGCTTT  
TCCAAAGACCTCTTCAGCAACCCACAAGAACTCTTATTTCTGATGGTCCCTTCTCAGTAAATGAACAA  
CAGGATCTACCACTTTTGGCAGAAGTCATCCAGATCCCTATGTAATGAGTCTTCAGAATCTGATGAAAA  
AGTCAAAGGAATATATAGAAAGAGAACAATCTAGACGCAGTCTGAGAGGTAGTATGAACAGAATTGTTAA  
TGAGAGTCATTTAGACAAAGAACATGATGCTGTTGAAGTGGCTGACTGTGTAAAAAGAGAAAGGCCAGTTG  
ACAGGCAAACTGTGTCTCAGTTATTCCTGACAAACCAAGCCTTAATAAATCAAATGTTCTTCTCCAAG  
GTGCTTCCACTCAAGCAAGCAGCATGAGTATGCCAGTTTATGCTAGCTTTTCGAAAGTGGACATACCTAT  
ACGAACTGGCCATCCCACTGTTCTAGAGTCTAATTCTGATTTTAAAGTTATTCCTACTTTTGTACCGAA  
AATAATGTTATCAAAAGTCTTACAGGTTTCATATGCCAAATTACCTAGTCCAGAGCCAAGTATGAGTCCTA  
AAATGCACCGAAGACGTTCCAGGACATCATCAGCGTGTATATACTTATAAATAACCCAATAAATGCCTG  
TGAATTAAGCCCTAAAGGAAAAGAACAGGCAATGGACTTAATTATTCAAGATACTGATGAAAACACAAAT  
GTGCCCGAAATTATGCCAAAGTTACCACTGATTTAGCGGAGTTTGTTCAGCAAGGTTTATGTGGGCA  
AAAATACATCTGAAGTCAAAGAAGATGTGGTTTATAGTAAATCAAATCAGGTATGTCAATCTTCAGGAAA  
TCATTTAGAAAATAAAGTTACTCATGGACTTGTTACTGTGAAGGTCAGTTAACATCCGATGAGAGAGGC



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GCACACATAATGAACAGTACCTGTGCTGCGATGCCAAAGCTGCATGAACCATATGCCAGCAGTCAGTGTA  
TAGCAAGTCCAACTTTGGAAGTGTGAGTGGACTCAAGCCAGCCAGTATGTTAGAGAAAACTGCAGTTT  
GCAACAGAACTGAATAAGTCTTATGATGTAAAAAACCTTCTCCTTTATTGATGCAAAACCAGAATACG  
AGACAGCAGATGGACACACCTATGGTGTCTGTGGAAATGAACAATTTTGGATAACAGTTTTGAGAAAG  
TTAAACGGAGACTTGATTTAGATATTGATGTTTGCAAAAAGAAAAGTCCCTTATGTCATAACAAGTGG  
AATAACTGAACAAGAAAGGCAACATTTGCCAGAAAAAGATACCCTAAGGGATCTGGCTTCGTTAACAAG  
AATAAAATGTTAGGAAGTGTTCCTCAAGAAAGCGAGGAGTTACTAAAAAGCAAGATGTTAGCTTTTGAAG  
AAATGCGGAAGAGACTAGAAGAAGCAGCAGCCAGCAATTATCACTACTCATAGCTGAGCAGGAAAGGGA  
ACAAGAAAGACTGCAAAAGGAAATAGAAGAGCAGGAGAAAAATGTTAAAGAGAAGAAGGCAATGACAGCG  
GAAGCCTCTGAGTTGGACATTAACAATGCAGTGGGAATTAGAATGGAGAAAAATAAGTGACTCTAGTTTGC  
TGGAAACAATGCTGTCTCAAGCGGACTCACTCCATACTTCAAATTCAAATAGTTCTGGTTTCACAAATTC  
TGCCATGCAATATAGCTTTGTTTCTGCAACGAAGCACCATTCTACCTCTGGGGATCATCAACTAGTGGC  
TTGACCAAACCTCAGTAACAAGGCCTTTTGAAGAGCCAAAAGTATGAGTCTCAAGTTTTTGTCTGG  
AAATACAAGCAAAATTTAAACAAAATAACTGCAGTGGCAAAAGGATTTCTACTCGTAGACTTATGCAGAC  
AGATAAGCTGAAGCAACTTCGACAAAAGTAAAAGATACTATGGAATTCATAAGAAGTTTTTCACTCAGAA  
GCACCATTAAAGAGAGGCATTGTTTCAGCTCAAGATGCTTCACCTCAGGAAAGAGTGTTAGCTCAGTTGC  
GAGCTGCCTTGTACGGTATTCTGACATATTCTTTGTAATGGATGCAGCTGAAAGAATGTCTATTCTACA  
TCATGATCGAGAAGTTCGAAAGAGAAAATGCTCAGGCAATGGATAAAATGAAAAGTCCACGAGTGGCT  
CTTTCAGCTGCAACACAGAAGTCTCTTGATAGGAAGAAATACATGAAAGCTGCTGAAATGGGAATGCCAA  
ATAAGAAATTTCTGGTTAAACAAAATCCTTCTGAAACAAGAGTCTTTCAGCCAAACCAAGGACAGAATGC  
ACCTGTTTCATAGGCTACTTAGTAGACAAGAACCCCTAAGACATCAGTGAAGGGGTTGTGCAAAATAGA  
CAGAAGCCTTCACAGAGCAGAGTGCCTAACAGAGTGCCTGTTTCAGGAGTATATGCAGGAAAAATCCAAA  
GAAAGCGGCCAAATGTTGCGACAATT

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC231456 representing NM\_001199022  
Red=Cloning site Green=Tags(s)

MEEYEKFCESLARIQEASLSTESFLPAQSESISLIRFHGVAILSPLLNIEKRKEMQKEKQKALDVEARK  
QVNRKALLTRVQEILDNVQVRKAPNASDFDQWEMETVYSNSEVRNLNVPATFPNSFPSSTEHSTAALD  
KIAGILPLDNEDQCKTDGIDLARDSEGFNSPKQCDSSNISHVENEAFPKTSSATPQETLISDGPFSVNEQ  
QDLPLLAIEVIPDPYVMSLQNLMMKSKKEYIEREQSRRSLRGSNNRIVNESHLDKEHDAVEVADCVKEKGQL  
TGKHCVSVIPDKPSLNKSNVLLQGASTQASSMSMPVLASFVKVDIPIRTGHPTVLESNSDFKVIPTFVTE  
NNVIKSLTGSYAKLPSPSPMSPKMHRRRSRTSSACHILINNPINACELSPKGKEQAMDIIQDTDENTN  
VPEIMPKLPTDLAGVCSSKVVYVGKNTSEVKEDVVLGKSNQVCQSSGNHLENKVTHGLVTVEGQLTSDERG  
AHIMNSTCAAMPKLHEPYASSQCIASPNFGTVSGLKPASMLEKNCSLQTELNKSVDVKNPSPLLMQNQNT  
RQQMDTPMVSCGNEQFLDNSFEKVKRRLLDIDGLQKENCYPYVITSGITEQERQHLPEKRYPKGSGFVNK  
NKMLGTSSKESEELLKSKMLAFEEMRKRLEEQAQQLSLLIAEQEREQERLQKEIEEQEKMLKEKKAMTA  
EASELDINNAVELEWRKISDSLSLETMLSQADSLHTSNSNSSGFTNSAMQYSFVSANEAPFYLWGSSTSG  
LTKLSVTRPFGRAKTRWSQVFSLEIQAKFNKITAVAKGFLTRRLMQTDKLLQLRQTVKDTMEFIRSFQSE  
APLKRGIQVSAQDASLQERVLAQLRAALYGIHDIFFVMDAAERMSILHHDREVRKEKMLRQMDKMSPRVA  
LSAATQKSLDRKKYKAAEMGMPNKKFLVKQNPSETRVLQPNQGNAPVHRLLSRQGTPKTSVKGVVQNR  
QKPSQSRVPNRPVSGVYAGKIQRKPNVATI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_001199022

**ORF Size:** 3036 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_001199022.1](#), [NP\\_001185951.1](#)

RefSeq ORF: 3039 bp

Locus ID: 9738

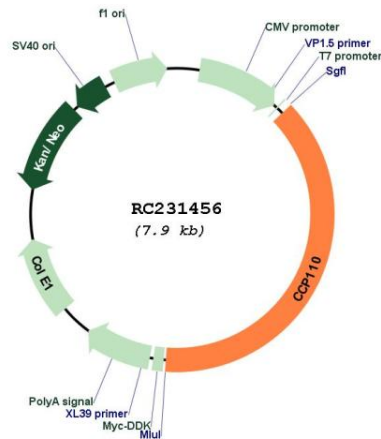
UniProt ID: [O43303](#)

Cytogenetics: 16p12.3

MW: 113.9 kDa

**Gene Summary:** Necessary for centrosome duplication at different stages of procentriole formation. Acts as a key negative regulator of ciliogenesis in collaboration with CEP97 by capping the mother centriole thereby preventing cilia formation (PubMed:17719545 PubMed:17681131, PubMed:23486064). Also involved in promoting ciliogenesis. May play a role in the assembly of the mother centriole subdistal appendages (SDA) thereby effecting the fusion of recycling endosomes to basal bodies during cilia formation (By similarity). Required for correct spindle formation and has a role in regulating cytokinesis and genome stability via cooperation with CALM1 and CETN2 (PubMed:16760425).[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for RC231456