

Product datasheet for SC114817

CNAP1 (NCAPD2) (NM_014865) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CNAP1 (NCAPD2) (NM_014865) Human Untagged Clone
Tag:	Tag Free
Symbol:	CNAP1
Synonyms:	CAP-D2; CNAP1; hCAP-D2; MCPH21
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC114817 sequence for NM_014865 edited (data generated by NextGen Sequencing)

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ATGGCTCCCCAAATGTATGAGTTCCATCTGCCATTATCCCCAGAGGAGTTGTTGAAAAGT
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GAGGAGATTCTGAGCAAATTGCCAATACAGAGACAACTGAAGATGTGAAAGGACGCATC
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CCCAAAGTTGCTTCTCAAGTGATGAGTCCAGTGAGGAAGATCTTTCAGCAGAGATGACA
GAAGACGAGACACCAAGAAAACAACCTCCATTCTCAGAGCATCGGCTCGCAGGCACAGA
TCCTAG

Clone variation with respect to NM_014865.3
1135 t=>n;1136 t=>n

5' Read Nucleotide Sequence:	>OriGene 5' read for NM_014865 unedited <pre> NGTCAGAAATTTTGAATACGACTCACTATAGGGCGGCNCGCGATTTCGGCACGAGGCCGCG GGTGAGATCCCCAGCCCTGTGAGCCTGTAGGAGTAGAATGGCTCCCCAAATGTATGAGTT CCATCTGCCATTATCCCCAGAGGAGTTGTTGAAAAGTGGAGGGGTGAATCAGTATGTTGT GCAAGAGGTACTGTCCATCAAACATCTTCCACCACAGCTTAGAGCTTTTCAGGCTGCCTT TCGAGCTCAGGGGCCCTGGCTATGCTGCAGCACTTTGATACTATCTACAGCATTTTGCA TCACCTTTCGAAGTATAGATCCTGGCCTCAAAGAAGATACTCTGCAATTCCTGATAAAAGT GGTATCCCGCCACTCCCAGGAGCTTCCAGCTATCCTGGATGATACAACTTTGAGTGGATC AGATAGAAACGCCCATCTAAATGCCCTCAAATGAACTGTTATGCTCTGATACGTCCTCT GGAATCCTTTGAGACCATGGCCAGCCAGACAAACCTTGTGGACCTGGACCTTGGTGGAA GGGTAAGAAAGCTCGGACCAAGGCAGCCCATGGCTTTGACTGGGAAGAAGAGAGGCAACC AATTCTTCAGCTTTTAACACAGCTACTTCAGTTGGACATCCGTCACCTGTGGAACCACTC AATAATTGAAGAAGAATTTGTAGTTTGGTTACTGGCTGTTGCTACCGCCTTCTGGAGAA TCCCAACCATTAATCACCAGAAGAACCGCCCACTCGGGAAGCCATAACACACCTGCTTGG TGTAGCCTTGACCCGTTTAACCATATGCTCAGTGCTACAGTGAAGATCATCCAGATGCTG CAGCACTTTGAACACCCTGCACCTGTACTGGTTGCAGCCGTGAGTCTATGGGCACTGACT ATGAATGAAGACATATC </pre>
Restriction Sites:	NotI-NotI
ACCN:	NM_014865
Insert Size:	5000 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:	<u>NM_014865.1, NP_055680.1</u>
RefSeq Size:	5547 bp
RefSeq ORF:	4806 bp
Locus ID:	9918
UniProt ID:	<u>Q15021</u>
Cytogenetics:	12p13.31
Domains:	Cnd1

Gene Summary:

Regulatory subunit of the condensin complex, a complex required for conversion of interphase chromatin into mitotic-like condense chromosomes. The condensin complex probably introduces positive supercoils into relaxed DNA in the presence of type I topoisomerases and converts nicked DNA into positive knotted forms in the presence of type II topoisomerases. May target the condensin complex to DNA via its C-terminal domain (PubMed:11136719). May promote the resolution of double-strand DNA catenanes (intertwines) between sister chromatids. Condensin-mediated compaction likely increases tension in catenated sister chromatids, providing directionality for type II topoisomerase-mediated strand exchanges toward chromatid decatenation. Required for decatenation of non-centromeric ultrafine DNA bridges during anaphase. Early in neurogenesis, may play an essential role to ensure accurate mitotic chromosome condensation in neuron stem cells, ultimately affecting neuron pool and cortex size (PubMed:27737959).[UniProtKB/Swiss-Prot Function]