

Product datasheet for **MG221165**

Cenpx (NM_016665) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Cenpx (NM_016665) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Cenpx
Synonyms: Stra13
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG221165 representing NM_016665
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGGGAAACAGTGGCTTCCGGAAGGAAGTGGTGAGCAGACTACTCCATTTGCACTTCAGGGATTGCA
AGACCAAAGTCAGCGGGGATGCACTGCAGCTCATGGCGGAGTTCCTGAGGATCTTCGTA TAGAGGCTGC
TGTCCTGGGGTCTGGCAGGCCAGGCAGAAAGACCTGGATGTTGTGAAGTGGATCAGCTGGAGAAAGTG
CTCCCTCAGCTGCTCCTGGACTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG221165 representing NM_016665
Red=Cloning site Green=Tags(s)
MEGNSGFRKELVSRLHLHFRDCKTKVSGDALQLMAEFLRIFVLEAAVRGVWQAQEDLDVVEVDQLEKV
LPQLLDF

TRTRPLE - GFP Tag - V

Chromatograms: https://cdn.origene.com/chromatograms/ja3234_a07.zip

Restriction Sites: Sgfl-MluI



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Cloning Scheme:



ACCN: NM_016665

ORF Size: 234 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

RefSeq: [NM_016665.2](#), [NP_057874.2](#)

RefSeq Size: 655 bp

RefSeq ORF: 237 bp

Locus ID: 20892

UniProt ID: [Q8C4X1](#)

Cytogenetics: 11 E2

Gene Summary: DNA-binding component of the Fanconi anemia (FA) core complex. Required for the normal activation of the FA pathway, leading to monoubiquitination of the FANCI-FANCD2 complex in response to DNA damage, cellular resistance to DNA cross-linking drugs, and prevention of chromosomal breakage. In complex with CENPS (MHF heterodimer), crucial cofactor for FANCM in both binding and ATP-dependent remodeling of DNA. Stabilizes FANCM. In complex with CENPS and FANCM (but not other FANCD proteins), rapidly recruited to blocked forks and promotes gene conversion at blocked replication forks. In complex with CENPS, CENPT and CENPW (CENP-T-W-S-X heterotetramer), involved in the formation of a functional kinetochore outer plate, which is essential for kinetochore-microtubule attachment and faithful mitotic progression. As a component of MHF and CENP-T-W-S-X complexes, binds DNA and bends it to form a nucleosome-like structure. DNA-binding function is fulfilled in the presence of CENPS, with the following preference for DNA substates: Holliday junction > double-stranded > splay arm > single-stranded. Does not bind DNA on its own. [UniProtKB/Swiss-Prot Function]

