

Product datasheet for **SC330910**

MHF2 (CENPX) (NM_001271007) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: MHF2 (CENPX) (NM_001271007) Human Untagged Clone
Tag: Tag Free
Symbol: MHF2
Synonyms: CENP-X; D9; FAAP10; MHF2; STRA13
Vector: pCMV6-Entry (PS100001)
Fully Sequenced ORF: >SC330910 representing NM_001271007.
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

ATGGAGGGAGCAGGAGCTGGATCCGGCTTCCGGAAGGAGCTGGTGGCAGGCTGCTGCACCTGCACTTC
 AAGGATGACAAGACCAAGAAGCAGCAGTCCGCGGCGTGCGGCAGGCCAGGCAGAAGACGCGCTCCGT
 GTGGACGTGGACCAGCTGGAGAAGCTCTGGACTTCAG

Restriction Sites: SgfI-MluI

ACCN: NM_001271007

Insert Size: 177 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_001271007.1

RefSeq Size: 745 bp



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RefSeq ORF:	177 bp
Locus ID:	201254
UniProt ID:	A8MT69
Cytogenetics:	17q25.3
MW:	6.5 kDa
Gene Summary:	<p>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 (PubMed:20347428, PubMed:20347429). 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 FANC proteins), rapidly recruited to blocked forks and promotes gene conversion at blocked replication forks (PubMed:20347428, PubMed:20347429). 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 (PubMed:19620631). As a component of MHF and CENP-T-W-S-X complexes, binds DNA and bends it to form a nucleosome-like structure (PubMed:20347428, PubMed:20347429). 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 (PubMed:20347429).[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (3) lacks an exon in the coding region, and uses an alternate in-frame splice site in the 3' coding region, compared to variant 1. The encoded isoform (3) is shorter, compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>