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Product datasheet for SC108144

MHF2 (CENPX) (NM_144998) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MHF2 (CENPX) (NM_144998) Human Untagged Clone
Tag:	Tag Free
Symbol:	MHF2
Synonyms:	CENP-X; D9; FAAP10; MHF2; STRA13
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC108144 sequence for NM_144998 edited (data generated by NextGen Sequencing) ATGGAGGGAGCAGGAGCTGGATCCGGCTTCCGGAAGGAGCTGGTGAGCAGGCTGCTGCAC CTGCACTTCAAGGATGACAAGACCAAAGAAGCAGCAGTCCGCGGCGTGCGGCAGGCCCAG GCAGAAGACGCGCTCCGTGTGGACGTGGACCAGCTGGAGAAGGTGCTTCCGCAGCTGCTC CTGGACTTCTAG Clone variation with respect to NM_144998.2
5' Read Nucleotide Sequence:	>OriGene 5' read for NM_144998 unedited TTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGGTTGAGGCTGCGG TCATGGAGGGAGCAGGAGCTGGATCCGGCTTCCGGAAGGAGCTGGTGAGCAGGCTGCTGC ACCTGCACTTCAAGGATGACAAGACCAAAGAAGCAGCAGTCCGCGGCGTGCGGCAGGCCC AGGCAGAAGACGCGCTCCGTGTGGACGTGGACCAGCTGGAGAAGGTGCTTCCGCAGCTGC TCCTGGACTTCTAGGGATCTCAGCCGTGGCTGAGGCCACCCCCAGAGGAGCCCCTGGTCC ACAGAAGCAGGCCTTGTGTTTCCAGCGGCCTCTGATAAGAGGCAGGGAAGGACCTGAAGG ATTTGGAGTTGATTCAAACAAGATCTCTGGGAGTCTCCAGCCTGTGCAGAAGGGGCAGGA CTGCAGTGCACTGCGGGCCTTGGAGTGTCCAGTGGGGACACTGGTGTGGGAAGGGGCAGC ACCTGGGGAGTCCCTGCCTCTCCTCCCTGGGACAATAGTGTGCATGCCACCCGGNGTCCT ACAGGCAGGTGCTGGGAAAGGCCTGGCCAGCAGGTAGCCTGTGTGTTTGACAAACAGCAG CTGGCAGCGCTGCCTCCTGCCCACATTCCTGCCACCCGACATCAAAGCTGGCGTGTGACC TTTCCAGCCATGCGATATTCCCCTTGGAAGATGCTTCNNCCAGNCTATAATTTGTTCTCA CAAAGCAACATCAATAAATCAAAACTGTCTCTCCCAAAAAAAAAAAAAAAAAAACTCGACT CTAGATTGCGGCCGCCGTCATAGCTGTTTCCTGAACAGATCCCNGGGTGGCATCCCTTGT GACCCCTCCCCAGTGCCTCTCCTGGCCCTGGAAGNTGCCACTCAGTGCCACCAGCCTGTC CTATAAATTAAGTGCTCATT
Restriction Sites:	NotI-NotI

View online »

ACCN:	NM_144998
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_144998.2, NP_659435.2
RefSeq Size:	863 bp
RefSeq ORF:	192 bp
Locus ID:	201254
UniProt ID:	A8MT69
Cytogenetics:	17q25.3

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 (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]
Transcript Variant: This variant (2) lacks an exon in the coding region, compared to variant 1. The encoded isoform (2) 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.