

Product datasheet for MC201841

Hmces (NM_173737) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Hmces (NM_173737) Mouse Untagged Clone
Tag: Tag Free
Symbol: Hmces
Synonyms: 8430410A17Rik; C85376
Mammalian Cell Selection: Neomycin
Vector: PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection: Kanamycin (25 ug/mL)

Fully Sequenced ORF: >BC024401 sequence for NM_173737
 CTAGCTGCGAGGAAGGGTGGACTAGACCCTCGGGCGGTCTGAGCGGCAGCGCTGAAGTATGTGCGGGCGA
 ACGTCCTGTCACTTGCCAGAGAGTTCTCACCAGGGCCTGCGCCTATCAGGATCGGCAGGGCCGGCGGG
 GGCTCCCGCAGTGGAGGGACCCCGACAAGTACTGCCCTCTACAACAAGAGCCCGCAGTCCAGCAGCCC
 CGTGCTGCTCTCCAGACTGCACTTTGAGAAGGATGCAGACTCATCAGATCGGATAAATTATCCCATGCGA
 TGGGGCTTAGTCCCATCTTGGTTCAAAGAAAGTGATCCTTCTAAGCTGCAGTTCAACACTACCAACTGTC
 GTAGTGATACCATAATGGAGAAGCAGTCATTCAAGTTTCTGCGGAAAGGACGGCGGTGTGTTGTTTT
 AGCAGATGGATTCTACGAGTGGCAGCGGTGTGAGGAACAACCAGAGGCAACCATACTTCATCTATTTT
 CCTCAAATCAAGACAGAGAAGTCAGGTGGGAACGATGCTTCAGACAGCTCTGACAACAAGGAAAAGGTCT
 GGGACAACCTGGAGGCTGCTGACAATGGCAGGGATCTTTGACTGCTGGGAAGCGCCAGGGGGAGAGTGCCT
 GTATTCCTACAGCATCATCACTGTGGATTCTGCAGAGGTTTGTGAGTACATCCACAGCAGGATGCCTGCC
 ATACTAGATGGAGAAGAAGCAGTCTCAAATGGCTCGACTTTGGTGAGGTCGCCACTCAGGAAGCTCTGA
 AGTAATCCACCCCATAGACAATATCACCTTCCATCCAGTTTCTCCAGTGGTGAACAATCCCGAAACAA
 CACTCCGGAGTGTCTGGCGCCTGCTGACTTGTGGTTAAGAAGGAGCCCAAGGCAATGGCAGCAGTCAA
 AGGATGATGCAGTGGCTGGCTACAAAGTCAACCAAAAGGAAAGTCCCTGACTCACCAAAAAGGATGCAT
 CAGGTCTACCCAGTGGTCCAGCCAGTTTCTCCAGAAGAGCCATTGCCTGCTAAAAGAGGTGCTACCAG
 CAGTTTCTGGATCGATGGCTGAAGCAGGAGAAGGAGGATGAGCCATGGCCAAGAAGCCTAACAGCTAG
 GCTCCATACCAGGCCTCAGCCTGATACAGCATTACTGTTGTCACCAGTTGACTGGAATTGTAACCTTTTA
 CTTGGGAATGTGGTGGCCCAATGTCAGCTGACCTGAAAGAACATGGCTACCGTGAGACAGCCCTGTGGGC
 CCTGCTACCCCTCTATTCTGCCTCCCTGCTGGGAGCTTCTGTTCCCTGGTGTCCACGAAGGAGGC
 TCTTCTCAGTCTCTGGGCTCTCCTTTAGAGTTAAGGTCTTAAATGTATTTTGTCTAAATAAACTGCGT
 TTGGTAAAAAAAAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI
ACCN: NM_173737
Insert Size: 1062 bp



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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:	<ol style="list-style-type: none">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>BC024401</u> , <u>AAH24401</u>
RefSeq Size:	1422 bp
RefSeq ORF:	1062 bp
Locus ID:	232210
UniProt ID:	<u>Q8R1M0</u>
Cytogenetics:	6 D1
Gene Summary:	Sensor of abasic sites in single-stranded DNA (ssDNA) required to preserve genome integrity by promoting error-free repair of abasic sites (By similarity). Acts as an enzyme that recognizes and binds abasic sites in ssDNA at replication forks and chemically modifies the lesion by forming a covalent cross-link with DNA (By similarity). The HMCES DNA-protein cross-link is then degraded by the proteasome (By similarity). Promotes error-free repair of abasic sites by acting as a 'suicide' enzyme that is degraded, thereby protecting abasic sites from translesion synthesis (TLS) polymerases and endonucleases that are error-prone and would generate mutations and double-strand breaks (By similarity). Acts as a protease: mediates autocatalytic processing of its N-terminal methionine in order to expose the catalytic cysteine (PubMed:29020633). Specifically binds 5-hydroxymethylcytosine (5hmC)-containing DNA in stem cells (PubMed:23434322). May act as an endonuclease that specifically cleaves 5hmC-containing DNA; additional experiments are however required to confirm this activity in vivo (PubMed:29020633).[UniProtKB/Swiss-Prot Function]