

Product datasheet for **MC200653**

Hnrnpu (NM_016805) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hnrnpu (NM_016805) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Hnrnpu
Synonyms:	AA408410; AI256620; AL024194; AL024437; AW557595; C86794; hnRNP U; Hnrpu; SAFA; Sp120
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC018353 sequence for NM_016805
 GCCGCCGCCACAGGCCGAGGGAGCCAGCAGTCAGCGGGGAACCGGGCCCTCAACATGAGTTCTTCG
 CCTGTTAATGTCAAGAAGCTGAAGGTGTCGGAGCTGAAGGAGGAGCTCAAGAAGCGGCGCCTCTCCGACA
 AGGGCCTCAAGGCCGATCTCATGGATCGACTCCAGGCCGCGTGGACAACGAGGCAGGAGGCCGCCCGC
 CATGGAGCCCGGAACGGCAGTCTCGACCTAGGTGGCGATGCGGCCGGCGCTCGGGAGCGGGCCTAGAG
 CAGGAGGCCGCGCTGGCGCCGAAGACGACGAGGAGGAGGAGGCATCGCCGCTCTGGACGGCGACCAGA
 TGGAGCTGGGCGAGGAGAACGGGCGGGCGGGCGGCTGACGCCGGCGGATGGAGGAAGAGGAGGCAGC
 GTCGGAAGACGAGAACGGCGACGACCAGGGCTTCCAGGAGGGGAAGACGAGCTCGGCGACGAGGAGGAG
 GCGCGGGCGACGAGAACGGTACCGGGAGCAGCAGTCCCAACCGCCGAGCGGCGGCGACGACGAGC
 CTTCCAGCAGCGTGGTCCGGCAAGGAGGCCGCGGGCAAGAGCAGCGGCCCCACCTCGCTCTTCGCGGT
 GACGGTGGCGCCAGGGGCGAGGCAGGGCCAACAGCAGGCGGGAGGAGACGGCAAAACAGAACAGAAA
 GGTGGAGATAAAAAGAGAGGCGTTAAAAGACCGCGAGAAGATCATGGCCGAGGATTTTTGAGTACATCG
 AAGAAAACAAGTACAGCAGAGCCAAGTCTCCTCAGCCACCTGTTGAAGAAGAAGACGAACACTTCGATGA
 CACAGTGGTTTGTCTTGATACTTATAATTGTGATCTGCATTTTAAATCTCGAGAGACCGTCTGAGTGCT
 TCTTCCCTTACTATGGAGAGTTTGTCTTCTGTGGGCTGGAGGAAGAGCTTCTACGGTGTGCAAAA
 GCAAAGTCTGCTTTGAGATGAAGTAACAGAGAAGATTCCAGTAAGACACTTATATACAAAAGATATTGA
 TATACATGAAGTTCGGATTGGCTGGTCACTAACCAAGTGAATGTTGCTTGGTGAAGAAGATTTTCT
 TACGGGTATTCTGAAAGGAATAAAAACATGCAACTGTGAGACAGAAGATTATGGGGAGAAGTTTGATG
 AAAATGATGTGATTACATGCTTTGCTAACTTTGAAACTGATGAAGTTGAACTCTTATGCGAAGAATGG
 ACAAGATCTTGGTGTTCCTTTAAGATCAGTAAGGAAGTCTTGTGACCGGCCACTATTTCCACATGTT
 CTCTGCCATAACTGTGCAGTTGAATTTAATTTTCGGTCAAAAGGAAAAGCCATACTTTCCAATACCTGAAG
 ACTGTACTTTTATCCAAAATGTCCCTTAGAGGACCGAGTTAGAGGACCAAAAGGACCTGAAGAGAAGAA
 GGATTGTGAGTTGTAATGATGATTGGCTTGCCAGGAGCTGAAAAACTACCTGGGTTTAAACATGCA
 GCTGAAAACCTGGGAAATACAACATTTTGAACAAATACGATTATGGACAAGATGATGGTGGCAGGTT
 TTAAGAAGCAAATGGCAGATACTGAAAACTGAACACACTGTTGCAGAGACCCACAGTGTCTTGCAAA
 GTTTATTGAAATGCTGCCCGTAAGAAGCGAAATTTTATTCTGGATCAGACAAATGTGTCTGCTGCTGCC
 CAGAGAAGAAAAATGTGCTGTTGCGAGCTTCCAGCGGAAAGCTGTTGTAGTGTGCCAAAAGATGAAG
 ACTATAAGCAGAGGACACAGAAGAAGGCAGAAGTAGAGGGGAAGGACCTACCAGAACATGCTGCTCCTCA
 GATGAAAGGAACTTCACCCTTCCAGAGGTTGCAGAATGCTTTGATGAAATAACCTATGTTGAACCTCAG
 AAAGAGGAAGCCAAAAGCTTTTGGAGCAATATAAAGAAGAAAGCAAAAAGGCACTGCCACCAGAAAAGA
 AGCAAAACACTGGCTCAAAGAAAAGCAATAAGAATAAGAGTGGCAAGAACCAGTTCAACAGAGGTGGTGG
 CCATAGAGGCCGTGGAGGATTCAATATGCGAGGTGGCAATTTAGAGGAGGAGCTCCTGGGAATCGTGGT
 GGATATAATAGGAGAGGCAACATGCCACAGAGAGTGGTGGCGGTGGAAGTGGTGGAAATGGCTATCCAT
 ACCCACGTGGCCCTGTTTTCTGGCCGAGGTGGTACTCAAACAGAGGGAAATACAACAGAGGTGGAAT
 GCCCAACAGAGGGAATAAACCAGAACTCAGAGGACGAGGAAATAATCGTGGCTACAAAATCAATCT
 CAGGGCTACAATCAGTGGCAGCAGGGTCAATCTGGGGTCAAGGCCATGGAGTCAAGTATACCAAG
 GATATTATTGAATACCAAAATAAACGAACTGATACATTTTCTCAAAAACCTTACAAGAAGTCGACTG
 TTTCTTTAGTAGGCTAACTTTTTAAACATTTCCACAAGAGGAAGTGCCTGCGGGTCTTTTTTGAAGC
 TTTGTGGGTTGATTTTTTTTTCTTTTTTTTTGTACATTTTTAATTGCAGTTTTAAAGTGAATCGTAA
 GAGAACCCTCAGCATTGTGCACGATAAAGAGAATGTGTGAGTATTTAGGGTCTACATTTTATCTGTAAAA
 TGTGACTTTTTTTTTATCAACAAGTAAAATGTTGCTTTGTACCTGGTGTCTTTTATAAGCATT
 ACTCCCCATTTCTCACAGAGAATAACAGTCGGGAGTCATTGTACAATAAAAATAGCAATGTTAGCAGCC
 AGATTCATGGAAGGACTAAGGGTCTCATGAATTGCATTAAGATTCTGTACTGCTCATGATACACTCCA
 TCCTCTAGACTGCCTGCCGGTAATAGTGGACGGTAACTCTGACAAAACGGGAAGGCTATTTTTTT
 TCTGTTTGACAAATGGAATTGGCATAATTGGGAATGAAGATAAAAATTTGAAACCAAGATTGAGAAGATGGA
 GTGATGTAGAAGGGCTGTTCAAAAATGTAACCTTGGTTGCATTATATGTGGAGGCTCAAACCTGTGAAG
 GTTAAATACCATAAAAATTTCCATTTGTTCTGCATTTTGATTCTGAAAAGAAAGCTGGCTTTGCCCATTT
 CTTATTAATAAACTTGTGTAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI

ACCN: NM_016805

Insert Size:	2403 bp
OTI Disclaimer:	<p>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.</p> <p>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</p>
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:	BC018353 , AAH18353
RefSeq Size:	3272 bp
RefSeq ORF:	2403 bp
Locus ID:	51810
UniProt ID:	Q8VEK3
Cytogenetics:	1 H4

Gene Summary:

DNA- and RNA-binding protein involved in several cellular processes such as nuclear chromatin organization, telomere-length regulation, transcription, mRNA alternative splicing and stability, Xist-mediated transcriptional silencing and mitotic cell progression (PubMed:20833368, PubMed:21235343, PubMed:22162999, PubMed:26244333). Plays a role in the regulation of interphase large-scale gene-rich chromatin organization through chromatin-associated RNAs (caRNAs) in a transcription-dependent manner, and thereby maintains genomic stability (By similarity). Required for the localization of the long non-coding Xist RNA on the inactive chromosome X (Xi) and the subsequent initiation and maintenance of X-linked transcriptional gene silencing during X-inactivation (PubMed:20833368, PubMed:26244333). Plays a role as a RNA polymerase II (Pol II) holoenzyme transcription regulator (PubMed:21235343, PubMed:22162999). Promotes transcription initiation by direct association with the core-TFIID basal transcription factor complex for the assembly of a functional pre-initiation complex with Pol II in an actin-dependent manner. Blocks Pol II transcription elongation activity by inhibiting the C-terminal domain (CTD) phosphorylation of Pol II and dissociates from Pol II pre-initiation complex prior to productive transcription elongation. Positively regulates CBX5-induced transcriptional gene silencing and retention of CBX5 in the nucleus. Negatively regulates glucocorticoid-mediated transcriptional activation (By similarity). Key regulator of transcription initiation and elongation in embryonic stem cells upon leukemia inhibitory factor (LIF) signaling (PubMed:21235343). Involved in the long non-coding RNA H19-mediated Pol II transcriptional repression (By similarity). Participates in the circadian regulation of the core clock component ARNTL/BMAL1 transcription (PubMed:18332112). Plays a role in the regulation of telomere length. Plays a role as a global pre-mRNA alternative splicing modulator by regulating U2 small nuclear ribonucleoprotein (snRNP) biogenesis. Plays a role in mRNA stability. Component of the CRD-mediated complex that promotes MYC mRNA stabilization. Enhances the expression of specific genes, such as tumor necrosis factor TNFA, by regulating mRNA stability, possibly through binding to the 3'-untranslated region (UTR). Plays a role in mitotic cell cycle regulation. Involved in the formation of stable mitotic spindle microtubules (MTs) attachment to kinetochore, spindle organization and chromosome congression. Phosphorylation at Ser-58 by PLK1 is required for chromosome alignment and segregation and progression through mitosis. Contributes also to the targeting of AURKA to mitotic spindle MTs. Binds to double- and single-stranded DNA and RNA, poly(A), poly(C) and poly(G) oligoribonucleotides. Binds to chromatin-associated RNAs (caRNAs). Associates with chromatin to scaffold/matrix attachment region (S/MAR) elements in a chromatin-associated RNAs (caRNAs)-dependent manner (By similarity). Binds (via RNA-binding RGG-box region) to the long non-coding Xist RNA; this binding is direct and bridges the Xist RNA and the inactive chromosome X (Xi) (PubMed:20833368, PubMed:26244333). Binds the long non-coding H19 RNA. Binds to SMN1/2 pre-mRNAs at G/U-rich regions. Binds to small nuclear RNAs (snRNAs). Binds to the 3' UTR of TNFA mRNA (By similarity). Also negatively regulates embryonic stem cell differentiation upon LIF signaling (PubMed:21235343). Required for embryonic development (PubMed:16022389). Binds to brown fat long non-coding RNA 1 (Blnc1); facilitates the recruitment of Blnc1 by ZBTB7B required to drive brown and beige fat development and thermogenesis (PubMed:28784777).[UniProtKB/Swiss-Prot Function]