

Product datasheet for **SC100078**

NSMCE1 (NM_145080) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NSMCE1 (NM_145080) Human Untagged Clone
Tag:	Tag Free
Symbol:	NSMCE1
Synonyms:	NSE1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC100078 sequence for NM_145080 edited (data generated by NextGen Sequencing)

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ATGCAGGGCAGCACAAGGAGAATGGGCGTCATGACTGATGTCCACCGCGCTTCCTCCAG
TTGCTGATGACCCATGGCGTGCTAGAGGAATGGGACGTGAAGCGCTTGACAGCGCACTGC
TACAAGGTCCATGACCGCAATGCCACCGTAGATAAGTTGGAGGACTTCATCAACAACATT
AACAGTGTCTTGGAGTCCTTGTATATTGAGATAAAGAGAGGAGTCACGGAAGATGATGGG
AGACCCATTTATGCGTTGGTGAATCTTGCTACAACCTCAATTTCCAAAATGGCTACGGAT
TTTGCAGAGAATGAACTGGATTTGTTTAGAAAGGCTCTGGAAGTATTGACTCAGAA
ACCGGCTTTGCGTCTTCCACAAACATATTGAACCTGGTTGATCAACTTAAAGGCAAGAAG
ATGAGGAAGAAGGAAGCGGAGCAGGTGCTGCAGAAGTTTGTTCAAAACAAGTGGCTGATT
GAGAAGGAAGGGGAGTTCACCCTGCACGGCCGGCCATCCTGGAGATGGAACAATACATC
CGGGAGACGTACCCCGACGCGGTGAAGATCTGCAATATCTGTACAGCCTCCTCATCCAG
GGTCAAAGCTGCGAAACCTGTGGGATCAGGATGCACTTACCCTGCGTGGCCAAGTACTTC
CAGTCAATGCTGAACCGCGCTGCCCCACTGCAACGACTACTGGCCCCACGAGATCCCA
AAAGTCTTCGACCCTGAGAAGGAGAGGGAGTCTGGTGTCTTGAATCGAACAAAAAGTCC
CTGCGGTCCAGGCAGCATTAG

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Clone variation with respect to NM_145080.3
531 g=>a



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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_145080 unedited AAGGGTTCACATTTGTATACGACTCATATAGGCGGCCGCGAAATTCGCACGAGGCTTGGG CTCCCTGTTTCGTTCCCACATGCAGGCAGCACAAGGAGAATGGGCGTCATGACTGATGTCC ACCGGCGCTTCCCTCCAGTTGCTGATGACCCATGGCGTGCTAGAGGAATGGGACGTGAAGC GCTTGCAGACGCACTGCTACAAGTCCATGACCGCAATGCCACCGTAGATAAGTTGGAGG ACTTCATCAACAACATTAACAGTGTCTTGGAGTCTTGTATATTGAGATAAAGAGAGGAG TCACGGAAGATGATGGGAGACCCATTTATGCGTTGGTGAATCTTGCTACAACCTCAATTT CCAAAATGGCTACGGATTTTGCAGAGAATGAACTGGATTTGTTTAGAAAGGCTCTGGAAC TGATTATTGACTCAGAAACCGGCTTTGCGTCTTCCACAAACATATTGAACCTGGTTGATC AACTTAAAGGCAAGAAGATGAGGAAGAAGGAAAGCGGAGCAGGTGCTGCAGAAGTTTGTTT AAAACAAGTGGCTGATTGAGAAGGAAGGGGAGTTCACCCGTCACGGCCGGCCATCCTGG AGATGGAACAATACATCCGGGAGACGTACCCCGACGCGGTGAAGATCTGCAATATCTGTC ACAGCCTCCTCATCCAGGGTCAAAGCTGCGAAACCTGTGGGATCANGATGCACTTACCT GCGTGGCCAAAGTACTTTTCAAGTGAATGCTGAACCGCGCTGCCCCACTGCAACGACTACT GGCCCCACGAGATCCCAAAAGTCTTCGACCCTGAGAAAGAGAGGGAGTCTGGNTGCTTGT AAATCGAACAAAAAGTCCCTGNNCGTCCAGCAGCATTAGCCATCGTGCCCTGT</p>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_145080 unedited ATGGACCGCGCGGCAATCTANAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT TTTTTTTTTTTTTTTGCAGCAACTTCCCAGGATGGGTTATTCCAAAGCTGTGGACGGGGA ACATTAACAAACAAAGAGGGGACTCGCGTGAACCTGAAACACAAACCCCTTTTTTCCAAA AAGGGCTGTGGCGATCAGGCCACTCAAGGGAGCCAGCCCTCAACAGGGCAGGATGGCTA ATGCTGCCTGGACCGCAAGGACTTTTTGTTCGATTTCAAGACACCAGACTCCCTCTCCTT TTCAGGGTCGAAAACCTTTGGGATCTCGTGGGGCCGTAATCCTTGCAGTGGGGGCAACG CGGTTCAACATCCACTGGAAATACTTGCCACCCCGGGGAAGTGCATCCTGATCCCCAG GTTTCGCAACTTTGACCTGGATGAAGAGGCTGTGACAAATATTGCAGATCTTACCAGCG TCGGGGTACCTCTCCCGATGTATTGGTCCATCTCCACGATGGCCCCGCCTGCAAGGTG AACTCCCTTTCTTCAATCAGCCACTGTGTTTGAACAACTTCTGGAACACCTGCTCC GCTTCTTCTTCTCAACTTCTTGGCCTAAGTTGATCAACCCGTTCAATATGTTTGTG GAAGACGCAAAACCCGTTCTGAGTCAATATCAATTTCCGACCCTTCTAAACAATCCCATT CATTCTCTGAAAACCCGTACCTTTTTGGAAATTGAGTTGTAGCAAGATTCACCAACGCA TAATGGGTCTCCCATAACTTTCCGGACTTCCCTTATATTCAAATACAAGACTTCAAA AACTGTTAAGGTGGTGAAGAAACCTCAACTATCTCCGGGCTTGCAGGATGGACCTGT TAAATGCTTTTGAACCTTAATTTATCCTTTAGACGCCCTGGTATCACAACTGAGAAAG CC</p>
Restriction Sites:	NotI-NotI
ACCN:	NM_145080
Insert Size:	1000 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:	<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:	NM_145080.2 , NP_659547.1
RefSeq Size:	983 bp
RefSeq ORF:	771 bp
Locus ID:	197370
UniProt ID:	Q8WV22
Cytogenetics:	16p12.1
Protein Families:	Druggable Genome
Gene Summary:	<p>RING-type zinc finger-containing E3 ubiquitin ligase that assembles with melanoma antigen protein (MAGE) to catalyze the direct transfer of ubiquitin from E2 ubiquitin-conjugating enzyme to a specific substrate. Within MAGE-RING ubiquitin ligase complex, MAGE stimulates and specifies ubiquitin ligase activity likely through recruitment and/or stabilization of the E2 ubiquitin-conjugating enzyme at the E3:substrate complex. Involved in maintenance of genome integrity, DNA damage response and DNA repair (PubMed:29225034, PubMed:20864041). NSMCE3/MAGEG1 and NSMCE1 ubiquitin ligase are components of SMC5-SMC6 complex and may positively regulate homologous recombination-mediated DNA repair (PubMed:18086888). MAGEF1-NSMCE1 ubiquitin ligase promotes proteasomal degradation of MMS19, a key component of the cytosolic iron-sulfur protein assembly (CIA) machinery. Down-regulation of MMS19 impairs the activity of several DNA repair and metabolism enzymes such as ERCC2/XPD, FANCI, RTEL1 and POLD1 that require iron-sulfur clusters as cofactors (PubMed:29225034).[UniProtKB/Swiss-Prot Function]</p>