

## Product datasheet for **SC317383**

### 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:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC317383 representing NM_145080. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTT TAGTGAACCGTCAGAATTTTGT AATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCC GCGATCGCC
ATGCAGGGCAGCACAAGGAGAATGGGCGTCATGACTGATGTCCACCGCGCTTCCTCCAGTTGCTGATG
ACCCATGGCGTGCTAGAGGAATGGGACGTGAAGCGCTTGACAGCGCACTGCTACAAGGTCCATGACCGC
AATGCCACCGTAGATAAGTTGGAGGACTTCATCAACAACATTAACAGTGTCTGGAGTCTTGATATATT
GAGATAAAGAGAGGAGTACGGAAGATGATGGGAGACCCATTTATGCGTTGGTGAATCTTGCTACAAC
TCAATTTCCAAAATGGCTACGGATTTTGCAGAGAATGAACTGGATTTGTTAGAAAGGCTCTGGAAC
ATTATTGACTCAGAAACCGGCTTTGCGTCTCCACAAACATATTGAACCTGGTTGATCAACTTAAAGGC
AAGAAGATGAGGAAGAAGGAAGCGGAGCAGGTGCTGCAGAAGTTTGTTCAAAACAAGTGGCTGATTGAG
AAGGAAGGGGAGTTCACCTGCACGGCCGGCCATCCTGGAGATGGAGCAATACATCCGGGAGACGTAC
CCCGACCGGTGAAGATCTGCAATATCTGTACAGCCTCCTCATCCAGGGTCAAAGCTGCGAAACCTGT
GGGATCAGGATGCACTTACCCTGCGTGGCCAAGTACTTCCAGTCGAATGCTGAACCGCGCTGCCCCAC
TGCAACGACTACTGGCCCACGAGATCCCAAAGTCTTCGACCCTGAGAAGGAGAGGGAGTCTGGTGTCT
TTGAAATCGAACAAAAAGTCCCTGCGGTCCAGGCAGCAT TAG
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGCGC
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Restriction Sites:	Sgfl-MluI
Plasmid Map:	<input type="checkbox"/>
ACCN:	NM_145080
Insert Size:	801 bp



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<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_145080.3</a>
<b>RefSeq Size:</b>	1079 bp
<b>RefSeq ORF:</b>	801 bp
<b>Locus ID:</b>	197370
<b>UniProt ID:</b>	<a href="#">Q8WV22</a>
<b>Cytogenetics:</b>	16p12.1
<b>Protein Families:</b>	Druggable Genome
<b>MW:</b>	30.9 kDa
<b>Gene Summary:</b>	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]