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Product datasheet for RR207782

Nsmce2 (NM_001024876) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nsmce2 (NM_001024876) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nsmce2
Synonyms:	RGD1305156
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RR207782 representing NM_001024876 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGCCAGGACGGTCCAGTACAAATTCAGGTTCTACTCGTTACATATCCTTCAGTGGTGTAGAGTCAGCTC TCTCCTCCTTAAAAACCTTCCAGTCCTGTATCAGCTCTGGGATGGACACAGTTTCTAGTGTTGCCTTGGA CCTTGTGGAGACCCAAACTGAAGTGAGTAGTGAGTACAGTATGGACAAGGCCATGGTTGAATTTGCTAAA ATGGATCGAGAACTAAACCATTATGTTAAGGCTGTCCAGTCTACAATAAATCATGTAAAAGAAGAACGTC CAGAAAAAGTACCAGATTTAAAATTACTGGTGGAGAAGAAATTTTTGGCTTTACAGGATAAGAACTCTGA CGCCGACTTTAAAGAGAATGAAAAGTTCGTGCAGTTTAAGCAGCAGCTGCGGGAGCTGAAGAAGCAATAT GGTATTCATGCAGACAGAGAGAATGATGGGATAGAAGGAATGGATGAAGATATGATTGTGACCCAGAGCC AAACCAATTTCATCTGCCCCATAACACAGTTGGAAATGAAGAAGCCAGTGAAAAATAAAATGTGTGGCCA CACATACGAAGAGGAAGCCATTGTTCGCATGATTGAATCCAAGCATAAGAGGAAGAAGAAGGCTTGTTGC CCAAAAATTGGCTGTAGCCACACAGACATGAGAATGTCAGATCTCATTCCGGATGAAGCCCTGAGAAGGG CAATCGAGAGCCACAACAAGAAGAAAAAGCGCCACTCCGAG ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

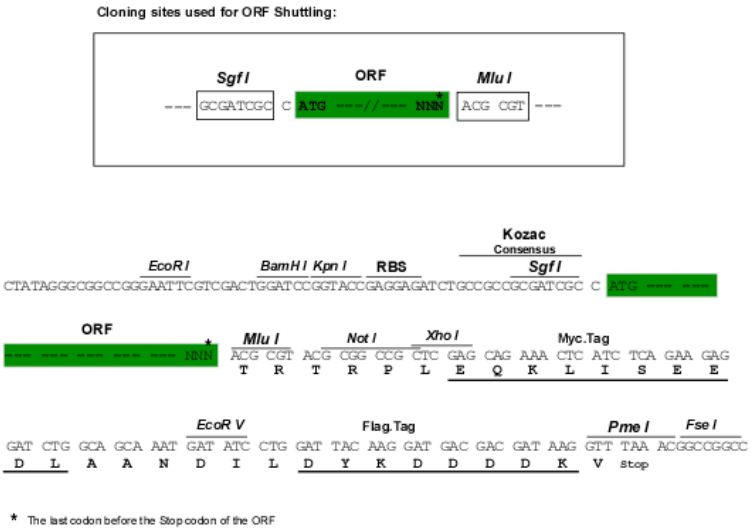
>RR207782 representing NM_001024876
Red=Cloning site Green=Tags(s)

MPGRSSTNSGSTRYISFSGVESALSSLKTFQSCISSGMDTVSSVALDLVETQTEVSSEYSMDKAMVEFAK
MDRELNHYVKAVQSTINHVKEERPEKVPDLKLLVEKKFLALQDKNSDADFKENEKFVQFKQQLRELKKQY
GIHADRENDGIEGMDEDMIVTQSQTNFICPITQLEMKKPVKNKMCGHTYEEEAIVRMIESKHKRKKKACC
PKIGCSHTDMRMSDLIPDEALRRAIESHNKKKKRHSE

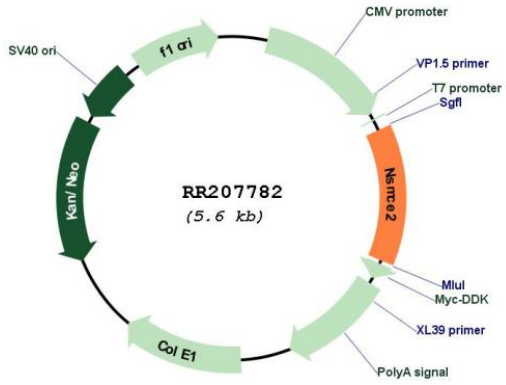
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001024876

ORF Size: 741 bp

OTI Disclaimer:	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
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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_001024876.1, NP_001020047.1
RefSeq Size:	1072 bp
RefSeq ORF:	744 bp
Locus ID:	299957
UniProt ID:	Q4V8A0
Cytogenetics:	7q33
MW:	28.2 kDa
Gene Summary:	E3 SUMO-protein ligase component of the SMC5-SMC6 complex, a complex involved in repair of DNA double-strand breaks by homologous recombination. Is not be required for the stability of the complex. The complex may promote sister chromatid homologous recombination by recruiting the SMC1-SMC3 cohesin complex to double-strand breaks. The complex is required for telomere maintenance via recombination and mediates sumoylation of shelterin complex (telosome) components. Acts as an E3 ligase mediating SUMO attachment to various proteins such as SMC6L1 and TRAX, the shelterin complex subunits TERF1, TERF2, TINF2 and TERF2IP, and maybe the cohesin components RAD21 and STAG2. Required for recruitment of telomeres to PML nuclear bodies. SUMO protein-ligase activity is required for the prevention of DNA damage-induced apoptosis by facilitating DNA repair. Required for sister chromatid cohesion during prometaphase and mitotic progression (By similarity).[UniProtKB/Swiss-Prot Function]