

Product datasheet for **MR216674**

Nsmce2 (NM_001164604) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Nsmce2 (NM_001164604) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Nsmce2
Synonyms: 1110014D18Rik; AI661537
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >MR216674 representing NM_001164604
Red=Cloning site **Blue**=ORF **Green**=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGCCAGGACGGTCCAGTACAAGTTCAGTTCTACCCGTTACATATCCTTCAGTGGCATAGAGTCAGCTC
TCTCCTCCTTAAAAACTTCCAATCCTGTATCAGCTCTGGAATGGACACAGTTTCTAGTGTTCCTTGG
CCTTGTGGAGACTCAAACTGAAGTGAGTAGTGAGTACAGTATGGACAAGCCATGGTTGAGTTTGCTAAA
ATGGATCGAGAACTAAGCCATTATGTTAAGGCTGTGCAGTCTACAATCAATCATGTAAAAGAAGACGTC
CAGAAAAAGTACCAGATTTAAAATTACTGGTAGAGAAGAAATTTTGGCTTTACAGGATAAAGAACTCTGA
TGCCGACTTTAAAGAGAATGAAAAGTTCGTGCAGTTCAAGCAACAGCTGAGGGAGCTGAAGAAGCAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR216674 representing NM_001164604
Red=Cloning site **Green**=Tags(s)

MPGRSSTSSGSTRYISFSGIESALSSLKNFQSCISSGMDTVSSVALDLVETQTEVSSEYSMDKAMVEFAK
MDRELSHYVKAVQSTINHVKEERPEKVPDLKLLVEKKFLALQDKNSDADFENEKVFQFKQLRELKKQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI



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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:	<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>NM_001164604.1</u> , <u>NP_001158076.1</u>
RefSeq Size:	2745 bp
RefSeq ORF:	420 bp
Locus ID:	68501
UniProt ID:	<u>Q91VT1</u>
Cytogenetics:	15 D1
MW:	16.2 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]