

## Product datasheet for **RC218073L3V**

### NSMCE1 (NM\_145080) Human Tagged ORF Clone Lentiviral Particle

#### Product data:

Product Type:	Lentiviral Particles
Product Name:	NSMCE1 (NM_145080) Human Tagged ORF Clone Lentiviral Particle
Symbol:	NSMCE1
Synonyms:	NSE1
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
Tag:	Myc-DDK
ACCN:	NM_145080
ORF Size:	798 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC218073).
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. <a href="#">More info</a>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<a href="#">NM_145080.3</a> , <a href="#">NP_659547.2</a>
RefSeq Size:	1079 bp
RefSeq ORF:	801 bp
Locus ID:	197370
UniProt ID:	<a href="#">Q8WV22</a>
Cytogenetics:	16p12.1
Protein Families:	Druggable Genome
MW:	30.7 kDa



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**Gene Summary:**

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, FANCD1, RTEL1 and POLD1 that require iron-sulfur clusters as cofactors (PubMed:29225034).[UniProtKB/Swiss-Prot Function]