

Product datasheet for **RN205434**

Sde2 (NM_001024970) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sde2 (NM_001024970) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Sde2
Synonyms:	RGD1305572
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >RN205434 representing NM_001024970
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGC**

ATGGCGGAGGCTGCTGTGCTGGCGTGGGTTTCGGGCCCGGTACCGCGTGAAGGCGCTACCGTGTGCCT
 CGGTCCGGTGCTCAGTGCAGATGTAATCTACCGACACTGCGAAGAACAGGAAATTCCTGTGGAATGCTT
 CTTTGTGAAGTGCAATGGAGTCTCGTTGCTGCTGGTGACAAGGTGTGCCATGGAGCTGTGTACAGTTTG
 GAGCCCAGGCTTCGAGGGGGCAAAGGAGGTTTCGGGTCTATGCTTCGAGCACTTGGTGCACAGATTGAAA
 AGACAACCAATCGAGAAGCCTGCCGGATCTCAGTGGGAGGAGATTACGAGATGTCAATCATGAGAAAGC
 GATGGCCGAGTGGGTAAACAGCAAGCTGAGCGAGAGGCTGAAAAGGAGCAAAGGCGCCTGGAGAGACTG
 CAGCGAAAGCTTCGAGAGCCTGCACACTGCTTTGCCAGCCCTGACTACCAGAGGCAGTGCCATGAAATGG
 CTGAGCGTCTGGAGGATTCACTCCTCAAAGGTATGCAGGCTGCCTCCAGCAAGGTGGTGTGAGCAGAGGT
 CACGGAGACTCGAAAACGGCCTAACAGGTCAAAGACAGACCAGGAGCTGGTGCAAGAAAAAGAGGTGC
 TTTTGGTTGGGATGGAAGGACTGGAGGCTGCCGAGGGATCCAGTACTGGCAGTTTCAATGACAGTGAAG
 ATGATGACCATGAAGATGCTCCTGGGACCTCGGGGCTAGCTGCTGTGCCCGGAAAAATGGCAGTGATGG
 TGGGGAGGTGGCAGCAGACTCTCCTGGCAGTGTTGAGAGCTCAGGATCTGGTACACGCTCTGAGTCGCCT
 AAAGAGCTTCAGAACCCCATGACTGAGCCTGGGAGGGCATTTTGGAGAACACAGGAACTGAGCCAGGAG
 AGACATCTACCAGGGAGCACAATGAGAGGAAGACGGTACAGTACAGAAACAGAGGAGACCCAGCAAG
 GAAGGAAACAGAGAGTCCCGAGCCACAGAAAAGGGCCAGAGACAGGAGTGATTGGTGAAGACAGAGCT
 GCCATGGCTTTGTCTGGAGAAGACAGGAAAAGCATCCCTGCTGCTACCCAGAGGGAAGCAACTCAGGAG
 ACACGGCTCTTGGTGTGGAAGCTCTGGATCTGTCGGCATTGAGCTGTGCAGCCGAGTTGGAGTTGCTGGG
 TTTGGAGAGGCTCAAGTGTGCACTGATGGCCCTTGGACTGAAAGTGCAGGGGGAACCTGCAGGAGCGTGCG
 GCCAGACTCTTCTCTGTGAGAGGCTCTCAAAGGAGCTATTGACCCAACTTTATTTGCCAAGCCTTCAA
 AAGGGAAGAAGAAG**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001024970

Insert Size: 1347 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:

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_001024970.2](#), [NP_001020141.2](#)

RefSeq Size: 3158 bp

RefSeq ORF: 1347 bp

Locus ID: 289315

UniProt ID: [Q5BJN8](#)

Cytogenetics: 13q26

Gene Summary: Involved in both DNA replication and cell cycle control. Unprocessed SDE2 interacts with PCNA via its PIP-box. The interaction with PCNA prevents monoubiquitination of the latter thereby inhibiting translesion DNA synthesis. The binding of SDE2 to PCNA also leads to processing of SDE2 by an unidentified deubiquitinating enzyme, cleaving off the N-terminal ubiquitin-like domain. The resulting mature SDE2 is degraded by the DCX(DTL) complex in a cell cycle- and DNA damage dependent manner. Binding of SDE2 to PCNA is necessary to counteract damage due to ultraviolet light induced replication stress. The complete degradation of SDE2 is necessary to allow S-phase progression.[UniProtKB/Swiss-Prot Function]