

Product datasheet for **MR231231**

Smarcad1 (NM_001253392) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smarcad1 (NM_001253392) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Smarcad1
Synonyms:	AV081750; AW226546; D6Pas1; Etl1; mKIAA1122
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>MR231231 representing NM_001253392
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGATGGAGCCATTGCTGCTGCCTTGCTGATGTTTGGTATGCAGGTGGTGGACCCAGGAAAAGGAAAT
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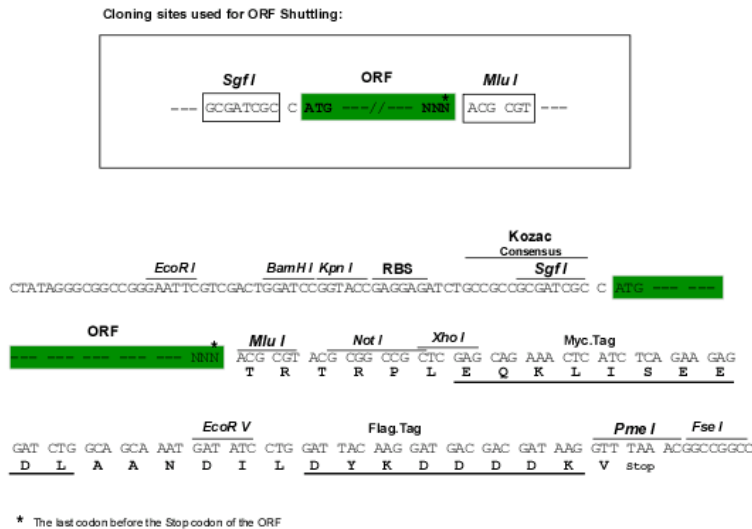
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR231231 representing NM_001253392
Red=Cloning site Green=Tags(s)

MDGAIAAALLMFGDAGGGPRKRKLSSESSEDDVNDQSVKQPRGDRGEESNESAEASSNWEKQESIVLKL
QKEFPNFDKQELREVLKEHEWMYTEALESVKVFAEDQDVQCASQSEVTNGKEVARNQNYSKNATKIKMKQ
KISVKPQNGFNKKRKNVFNPKKAVEDSEYDSGSDAGSSLDEDYSSCEEVMEDGYKGIKILHFLQVSSIAE
LTLIPKCSQKKAQKITELRPFNNWEALFTKMSKINGLSEDLIWNCKTVIQERDVVIRLMNKCEDI SNKLT
KQVTMLTGNNGGWNREQPSLLNQSLSLKPYQKVLNWLALVHKHGLNGILADEMGLGKTIQAI AFLAYLF
QEGNKGPHLIVVPASTIDNWLREVNLCPSLNVLCCYYGSQEERKQIRFNIHNKYEDYNVIVTTYNCAISS
SDDRSLFRRLKLNAYIFDEGHMLKNMGSIRYQHLMTINARNRLLLTGTPVQNNLELMSLLNFVMPHMF
SSTSEIRRMFSSKTKPADEQSIYEKERIAHAKQIKPFILRRVKEEVLKLLPPKKDRIELCAMSEKQEQL
YSGLFNRLKKSINNLEKNTEMCNMMQLRKMANHPLLHRQYYTPEKLEMSQLMLKEPTHCEANPD LIFE
DMEVMTDFELHVLCKQYQHINSYQLDMDLILDGKFRALGCILSELKQKGDVVLF SQFTMMLDILEVLL
KHHQHRYLRLDGKTQISERIHLEIDFNTDMDIFVFLSTKAGGLINLTSANVVILHDIDCNPYNDKQAE
DRCHRVGQTKEVLVIKLSQGTIEESMLKINQQKLEQDMMTTVDEADEGSMADIATLLKTSMGL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

Cloning Scheme:


ACCN: NM_001253392

ORF Size: 2508 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_001253392.1](#), [NP_001240321.1](#)

RefSeq Size: 4637 bp

RefSeq ORF: 2511 bp

Locus ID: 13990

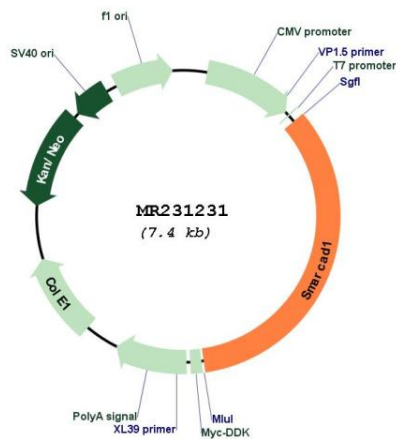
UniProt ID: [Q04692](#)

Cytogenetics: 6 30.11 cM

MW: 95.8 kDa

Gene Summary: DNA helicase that possesses intrinsic ATP-dependent nucleosome-remodeling activity and is both required for DNA repair and heterochromatin organization. Promotes DNA end resection of double-strand breaks (DSBs) following DNA damage: probably acts by weakening histone DNA interactions in nucleosomes flanking DSBs. Required for the restoration of heterochromatin organization after replication. Acts at replication sites to facilitate the maintenance of heterochromatin by directing H3 and H4 histones deacetylation, H3 'Lys-9' trimethylation (H3K9me3) and restoration of silencing (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR231231