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Product datasheet for MR203761

Smug1 (NM_027885) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smug1 (NM_027885) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Smug1
Synonyms:	1200013B09Rik; A930006H09Rik; C85220
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR203761 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTGCGTCCCAGACCTTCCCACTGGGGCCTACCCATGAGCCTGCAAGCGCCCTGATGGAGCCTCTGC
CTTGTACACGAAGCTTGGCTGAGGGCTTCCTGGAGGAGGAGCTTCGGCTCAATGCCGAGCTGAGCCAGCT
GCAGTTCCCGGAGCCCGTGGGTGTCATCTACAACCCGGTGGATTATGCTTGGGAGCCACACCGTAACTAT
GTGACTCGCTACTGCCAAGGCCCCAAGGAAGTGCTGTTCTTGGGCATGAACCCAGGACCTTTTGGCATGG
CCCAAACAGGGGTACCCTTTGGGGAAGTGAATGTGGTCCGGGACTGGTTGGGCGTTGGGGGCCCTGTGCT
GACCCCTCCACAAGAGCACCCCAAGCGACCAGTGTTGGGACTGGAGTGCCCACAGTCAGAGGTGAGCGGA
GCCCGATTCTGGGGCTTTTTCCGGACCCTCTGCGGACAGCCTCAAGTCTTCTTCCGGCACTGCTTTGTCC
ACAATCTGTGTCCTCTACTCTTCTTGGCTCCCAGTGGACGAAACCTTACCCCAGCTGAGCTGCCCGCCAA
GCAGCGGGAGCAGCTGCTGTCGATCTGCGACGCAGCCCTCTGCCGGCAGGTGCAGCTGCTAGGGGTGCGT
CTGGTAGTGGGAGTGGGGCGGCTGGCAGAGCAGCGAGCCCGAAGAGCTCTAGCAGGGCTGACCCCGGAGG
TGCAGGTGGAGGGGCTCCTGCATCCATCTCCTCGAAGCGCACAGGCCAACAAAGGCTGGGAGGCGGCAGC
CAGGGAAAGACTCCAGGAGTTGGGGCTGCTGCCTCTGCTAACGGATGAGGGTTCAGCCAGACCTACA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

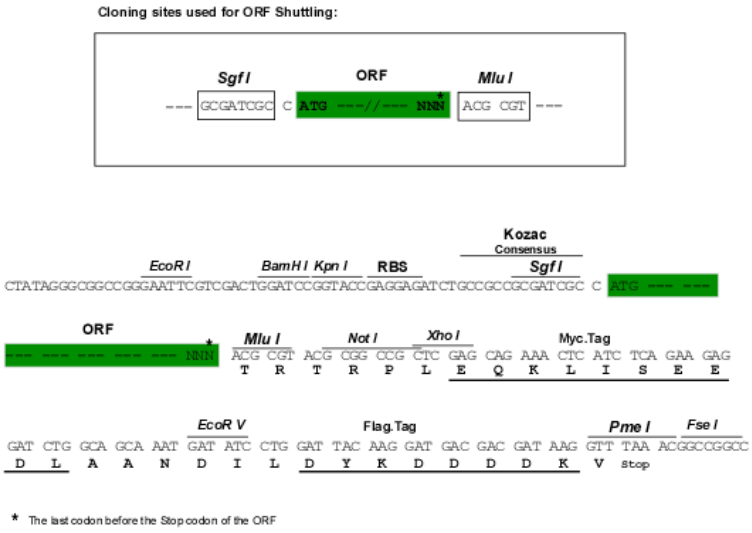
>MR203761 protein sequence
Red=Cloning site Green=Tags(s)

MAASQTFPLGPTHEPASALMEPLPCTRSLAEGFLEEELRLNAELSQLQFPEPVGVIYNPVDYAWEPHRNY
VTRYCQGPKEVLFLGMNPGPFGMAQTGVPFGEVNVVRDWLGVGGPVLTPPQEHPKRPVLGLECPQSEVSG
ARFWGFFRTLCGQPQVFFRHCFVHNLCPLLFLAPSGRNLTPAELPAKQREQLLSICDAALCRQVQLLGVR
LVVGVGRLAEQRARRALAGLTPEVQVEGLLHPSPRSAQANKGWEAAARERLQELGLLPLLTDEGSARPT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_027885

ORF Size: 840 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_027885.3, NP_082161.2

RefSeq Size: 3611 bp

RefSeq ORF: 840 bp

Locus ID: 71726

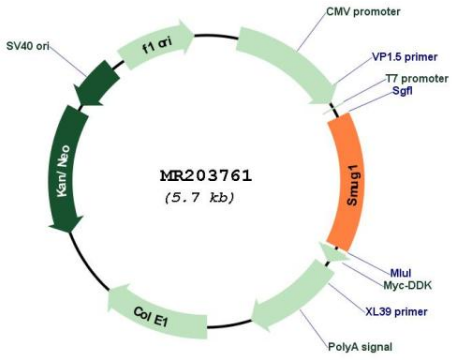
UniProt ID: Q6P5C5

Cytogenetics: 15 F3

MW: 30.7 kDa

Gene Summary: Recognizes base lesions in the genome and initiates base excision DNA repair. Acts as a monofunctional DNA glycosylase specific for uracil (U) residues in DNA with a preference for single-stranded DNA substrates. The activity is greater toward mismatches (U/G) compared to matches (U/A). Excises uracil (U), 5-formyluracil (fU) and uracil derivatives bearing an oxidized group at C5 [5-hydroxyuracil (hoU) and 5-hydroxymethyluracil (hmU)] in ssDNA and dsDNA, but not analogous cytosine derivatives (5-hydroxycytosine and 5-formylcytosine), nor other oxidized bases. The activity is damage-specific and salt-dependent. The substrate preference is the following: ssDNA > dsDNA (G pair) = dsDNA (A pair) at low salt concentration, and dsDNA (G pair) > dsDNA (A pair) > ssDNA at high salt concentration.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR203761