

## Product datasheet for MR219792

### Smox (NM\_001177838) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Smox (NM_001177838) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Smox
Synonyms:	B130066H01Rik; PAO; PAOh1; SMO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR219792 representing NM_001177838 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCAAAGTTGTGAATCCAGTGGCGACAGTGCCGATGACCCTCTCAGTCGTGGCCTACGGAGAAGGGGAC  
AGCCTCGTGTGGTGGTATCGGTGCTGGCTTGGCTGGCTGGCTGCAGCTAGAGCCCTTCTGGAGCAGGG  
CTTCACGGATGTCAGTGTGCTTGGGCTCCAGCCACATTGGGGCCGTGTGCAGAGTGTGAGGCTTGA  
GACACCACCTTTGAGCTGGGAGCCACCTGGATCCATGGATCCCACGGGAATCCTATCTATCAACTAGCAG  
AAGCCAATGGCCTTTTGAAGAGACAACAGATGGGGAGCGCAGTGTGGCCGCATCAGCCTTTACTCAA  
GAATGGCGTGGCCTGCTACCTTACCAACCGTGGCTGCCGATCCCAAGGACGTGTTGAGGAATTCAGC  
GATTTATAACAACGAGGTCTATAACATGACCCAGGAGTTCTTCCGGCATGGTAAACCAGTCAATGCCGAGA  
GTCAGAACAGCGTCGGGGTGTTCACCCGGGAGAAGGTGCGGAATCGCATCAGGGATGACCCTGACGACAC  
AGAGGCCACCAAGCGCTGAAGCTCGCCATGATCCAGCAGTACCTGAAGCCCATGCAGGTGCTCTTCTCC  
GGGAGGCCACACACCGCAAGTACTACTCCACCACCCACGGTGTCTGCTCTCTGGCCAGCGGAGGCCG  
CCCGGCTCATCGAGATGTACCGAGACCTTCCAGCAGGGGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR219792 representing NM\_001177838  
 Red=Cloning site Green=Tags(s)

MQSCCESSGDSADDPLSRGLRRRQPRVVVIGAGLAGLAAARALLEQGFTDVTVLEASSHIGGRVQSVRLG  
 DTTFELGATWIHGSHGNPIYQLAEANGLLEETTDGERSVGRISLYSKNGVACYLTNRGCRIPKDVVEEFS  
 DLYNEVYNMTQEFRRHGKPVNAESQNSVGVFTREKVRNRIRDDPDDTEATKRLKLAMIQQYLKPMQVLF  
 GEATHRKYYSTTHGALLSGQREAAarliemyrdlFQQGP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001177838

**ORF Size:** 744 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\\_001177838.1](#), [NP\\_001171309.1](#)

**RefSeq Size:** 1269 bp

**RefSeq ORF:** 747 bp

**Locus ID:** 228608

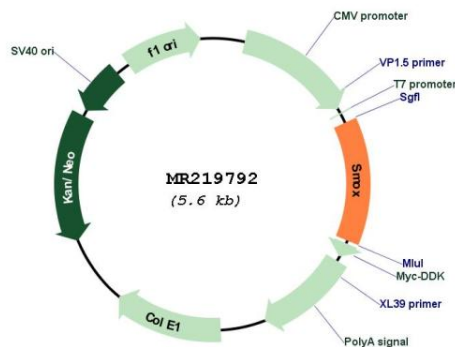
**UniProt ID:** [Q99K82](#)

**Cytogenetics:** 2 F1

**MW:** 27.9 kDa

**Gene Summary:** Flavoenzyme which catalyzes the oxidation of spermine to spermidine. Can also use N(1)-acetylspermine and spermidine as substrates, with different affinity depending on the isoform (isozyme) and on the experimental conditions. Plays an important role in the regulation of polyamine intracellular concentration and has the potential to act as a determinant of cellular sensitivity to the antitumor polyamine analogs. May contribute to beta-alanine production via aldehyde dehydrogenase conversion of 3-amino-propanal. [UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR219792