

Product datasheet for **MR219787**

Smox (NM_001177833) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smox (NM_001177833) 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)



[View online »](#)

ORF Nucleotide Sequence:

>MR219787 representing NM_001177833
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCAAAGTTGTGAATCCAGTGGCGACAGTGGGATGACCTCTCAGTCGTGGCCTACGGAGAAGGGGAC
 AGCCTCGTGTGGTGTATCGGTGCTGGCTTGGCTGGCCTGGCTGCAGCTAGAGCCCTTCTGGAGCAGGG
 CTTACCGGATGTCACTGTGCTTGAAGCTTCCAGCCACATTGGGGCCGTGTGCAGAGTGTGAGGCTTGA
 GACACCACCTTTGAGCTGGGAGCCACCTGGATCCATGGATCCCACGGGAATCCTATCTATCAACTAGCAG
 AAGCCAATGGCCTTTTGAAGAGACAACAGATGGGGAGCGCAGTGTGGGCCGCATCAGCCTTTACTCAA
 GAATGGCGTGGCCTGCTACCTTACCAACCGTGGCTGCCGCATCCCCAAGGACGTGGTTGAGGAATTCAGC
 GATTTATACAACGAGGTCTAACATGACCCAGGAGTTCTCCGGCATGGTAAACCAGTCAATGCCGAGA
 GTCAGAACAGCGTCGGGGTGTCCACCCGGGAGAAGGTGCGGAATCGCATCAGGGATGACCCTGACGACAC
 AGAGGCCACCAAGCGCCTGAAGCTCGCCATGATCCAGCAGTACCTGAAGGTGGAGAGCTGTGAGAGCAGC
 TCCACAGCATAGATGAGGTGTCCCTGAGCGCCTTTGGAGAATGGACGGAGATCCCAGGCCCCATCACA
 TCATCCCCTCGGGCTTCATGCGAGTTGTGGAGCTGCTGGCTGAGGGCATTCTCCACATGTCATCCAGTT
 GGGGAAGCCGGTCCGTTGCATCCACTGGGACCAGGCCTCGGCTCACCCCGGGGTCTGAGATCGAGCCC
 CGTGGTGAAGGTGATCACAATCACGACACTGGGAGGGTGGCCAGAGTGGAGAGAATCCGACGAGGGGA
 GGTGGGACGAGGATGAGCCGTGGCTGTAGTCGTGGAGTGCAGGATTGCGAGGTGATCCAGCGGACCA
 CGTGATTGTGACCGTTTCGCTGGCGTGTCAAGAGGCAGTACACCAGTTCTTTAGGCCATGCCTGCC
 ACGGAGAAGGTGGCCGCCATCCACCGCTGGGCATTGGTACCCTGACAAGATCTTCTTGAATTTGAGG
 AGCCCTTTTGGGCCCCGAGTGCAACAGCCTGCAGTTCTGTGGGAGGATGAGGCAGAGCTGTACCT
 CACCTACCCACCTGAGCTCTGGTACCGCAAGATCTGTGGCTTCGATGTCCTTTATCCGCCAGAGCGCTAT
 GGCCATGTGCTGAGTGGCTGGATCTGTGGGAGGAGGCTCTTGTGATGGAGAGGTGCGATGACGAGGCTG
 TAGCTGAGATCTGCACAGAGATGCTTCGACAGTTCACAGGGAACCCCAATATACCAAAACCTAGGCGAAT
 CCTGCGCTCAGCCTGGGCGAGCAACCCATACTCCGGGTTTCTATTCTACACAGAGTGGGCTCAAGT
 GGGGCGGATGTGGAGAAGCTAGCCAAGCCCTGCCCTACACAGAGAGCTCCAAGACAGCGCATAGAAGCT
 CCACAGAGCAGCAGCCTGGTACCTTTTACCATCCAAGTCCCCAGAACAATCCCTGGACCCTAGTAGGGG
 CTCCATAAAGCCCATGCAGGTGCTTTCTCCGGGAGGCCACACCCGCAAGTACTACTCCACCACCCAC
 GGTGCTCTGCTCTGGCCAGCGGAGGCCGCCGGCTCATCGAGATGTACCGAGACCTCTCCAGCAGG
 GGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR219787 representing NM_001177833
 Red=Cloning site Green=Tags(s)

MQSCESSGDSADDPLSRGLRRRQPRVVVIGAGLAGLAAARALLEQGFDTVLEASSHIGGRVQSVRLG
 DTFELGATWIHGSHGNPIYQLAEANGLLEETTDGERSVGRISL YSKNGVACYL TNRGCRIPKDVVEEFS
 DLYNEVYNMTQEFFRHGKPVNAESQNSVGVF TREKVRNRIRDDPDDTEATKRLKLAMIQQYLKVESCESS
 SHSIDEVSLSAFGEWTEIPGAHHIIPSGFMRVVELLAEGIPPHVIQLGKPVRCIHWDAQASAHPRGPEIEP
 RGEDHNDTGEQGQSGENPQQGRWDEDEPWVVECEDCEVIPADHVIIVTVSLGVLKRQYTSFFRPCLP
 TEKVAAIHRLLGIGTTDKIFLEFEFPFWGPECNSLQFVWEDEAESCTLTYPPELWYRKICGFVLYPPER
 GHVLSGWICGEEALVMERCDDAEVAEICTEMLRQFTGNPNIPKPRRILRSAGWSNPYFRGSYSYTVQVSS
 GADVEKLAKLPLYTESSKTAHRSSTEQQPGHLLPSKCEQSLDPSRGSIKPMQVLFSGEATHRKYSTTH
 GALLSGQREARLIEMYRDLFQQGP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/ja1838_f08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001177833

ORF Size: 1755 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_001177833.1](#), [NP_001171304.1](#)

RefSeq Size: 2280 bp

RefSeq ORF: 1758 bp

Locus ID: 228608

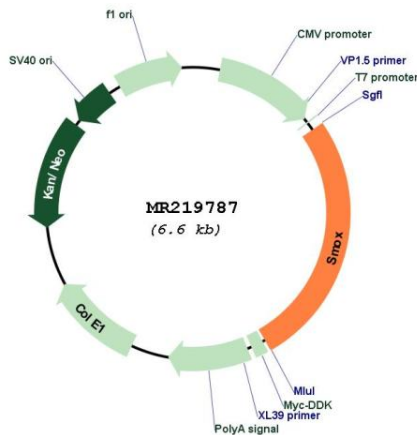
UniProt ID: [Q99K82](#)

Cytogenetics: 2 F1

MW: 65.6 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 MR219787