

Product datasheet for **MR208801**

Smox (NM_145533) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smox (NM_145533) 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)



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ORF Nucleotide Sequence:

>MR208801 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCAAAGTTGTGAATCCAGTGGCGACAGTGGGATGACCCTCTCAGTCGTGGCCTACGGAGAAGGGGAC
 AGCCTCGTGTGGTGGTATCGGTGCTGGCTGGCTGGCTGCAGCTAGAGCCCTTCTGGAGCAGGG
 CTTACCGGATGCTACTGTGCTTGAAGCTTCCAGCCACATTGGGGCCGTGTGCAGAGTGTGAGGCTTGA
 GACACCACCTTTGAGCTGGGAGCCACCTGGATCCATGGATCCCACGGGAATCCTATCTAACAAGTAGCAG
 AAGCCAATGGCCTTTTGAAGAGACAACAGATGGGGAGCGCAGTGTGGCCGCATCAGCCTTTACTCAA
 GAATGGCGTGGCCTGCTACCTTACCAACCGTGGCTGCCGCATCCCAAGGACGTGGTTGAGGAATTCAGC
 GATTTATACAACGAGGTCTATAACATGACCCAGGAGTTCTTCCGGCATGGTAAACCAGTCAATGCCGAGA
 GTCAGAACAGCGTCGGGGTGTCCACCCGGGAGAAGGTGCGGAATCGCATCAGGGATGACCCTGACGACAC
 AGAGGCCACCAAGCGCCTGAAGCTCGCCATGATCCAGCAGTACCTGAAGTGGAGAGCTGTGAGAGCAGC
 TCCACAGCATAGATGAGGTGTCCCTGAGCGCCTTTGGAGAATGGACGGAGATCCAGGCCGCCATCACA
 TCATCCCCTCGGGCTTATGCGAGTTGTGGAGCTGCTGGCTGAGGGCATTCTCCACATGTCATCCAGTT
 GGGGAAGCCGGTCCGTTGCATCCACTGGGACCAGGCCTCGGCTCACCCCGGGGTCTGAGATCGAGCCC
 CGTGGTGAAGGTGATCACAATCAGCAGCTGGGAGGGTGGCCAGAGTGGAGAGAATCCGACGAGGGGA
 GGTGGGACGAGGATGAGCCGTGGCTGTAGTGTGGAGTGCAGGATTGCGAGGTGATCCAGCGGACCA
 CGTGATTGTGACCGTTTCGCTGGCGTGTCAAGAGGCAGTACACCAGTTTCTTTAGGCCATGCCTGCC
 ACGGAGAAGTGGCCGCCATCCACCGCTGGGCATTGGTACCAGTACAAGATCTTCTTGAATTTGAGG
 AGCCCTTTTGGGCCCCGAGTGCAACAGCCTGCAGTTCTGTGGGAGATGAGGCAGAGCTGTACCCT
 CACCTACCCACCTGAGCTCTGGTACCGCAAGATCTGTGGCTTCGATGTCCTTTATCCGCCAGAGCGCTAT
 GGCCATGTGCTGAGTGGCTGGATCTGTGGGAGGAGGCTCTTGTGATGGAGAGGTGCGATGACGAGGCTG
 TAGCTGAGATCTGCACAGAGATGCTTCGACAGTTCACAGGGAACCCCAATATACCAAAACCTAGGCGAAT
 CCTGCGCTCAGCCTGGGCGAGCAACCCATACTCCGGGTTTCTATTCTACACAGAGTGGGCTCAAGT
 GGGGCGGATGTGGAGAAGCTAGCCAAGCCCTGCCCTACACAGAGAGCTCCAAGACAGCGCCATGCAGG
 TGCTCTTCTCCGGGAGGCCACACACCGCAAGTACTACTCCACCACCCACGGTGTCTGTCTCTGGCCA
 GCGCGAGGCCGCCGGCTCATCGAGATGTACCGAGACCTTCCAGCAGGGGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR208801 protein sequence
 Red=Cloning site Green=Tags(s)

MQSCESSGDSADDPLSRGLRRRQPRVVVIGAGLAGLAARALLEQGFDTVLEASSHIGGRVQSVRLG
 DTTFELGATWIHGSHGNPIYQLAEANGLLEETDGERVGRISLYSKNGVACYLTNRGCRIPKDVVEEFS
 DLYNEVYNTQEFFRHGKPVNAESQNSVGVFTREKVRNRIRDDPDDTEATKRLKLAMIQQYLKVESCESS
 SHSIDEVSLSAFGEWTEIPGAHHIIPSGFMRVVELLAEGIPPHVIQLGKPVRCIHWDQASAHPRGPEIEP
 RGEDHNHDTGEGGQSGENPQQGRWDEDEPWVVECEDCEVIPADHVIVTVSLGVLKRQYTSFFRPCLP
 TEKVAAIHRLLGIGTTDKIFLEFEFPWGPENCNLSLQFVWEDEAESCTLTYPPELWYRKICGFDVLYPPER
 YGHVLSGWICGEEALVMERCDDAEVAEICTEMLRQFTGNPNIPKPRRILRSAWGSNPYFRGSYSYTVQVSS
 GADVEKLAKPLPYTESSKTAPMQVLFSGEATHRKYSTTHGALLSGQREARLIEMYRDLFQQGP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_145533

ORF Size: 1668 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_145533.2](#), [NP_663508.1](#)

RefSeq Size: 2190 bp

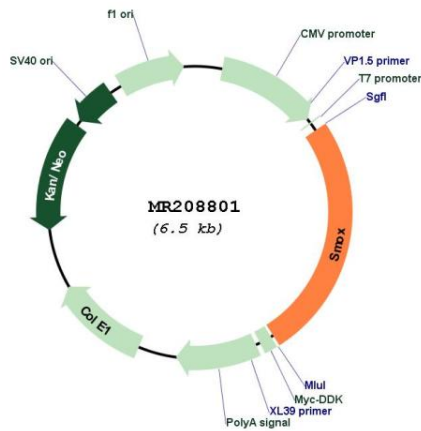
RefSeq ORF: 1668 bp

Locus ID: 228608

UniProt ID: [Q99K82](#)

Cytogenetics:	2 F1
MW:	61.9 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 MR208801