

## Product datasheet for **MC217646**

### Smox (NM\_001177834) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Smox (NM_001177834) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Smox
Synonyms:	B130066H01Rik; PAO; PAOh1; SMO
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC217646 representing NM\_001177834  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCAAAGTTGTGAATCCAGTGGCGACAGTGGGATGACCTCTCAGTCGTGGCCTACGGAGAAGGGGAC  
 AGCCTCGTGTGGTGGTATCGGTGCTGGCTTGGCTGGCCTGGCTGCAGCTAGAGCCCTTCTGGAGCAGGG  
 CTTACCGGATGTCACTGTGCTTGAAGCTTCCAGCCACATTGGGGCCGTGTGCAGAGTGTGAGGCTTGA  
 GACACCACCTTTGAGCTGGGAGCCACTGGATCCATGGATCCCACGGGAATCCTATCTATCAACTAGCAG  
 AAGCCAATGGCCTTTTGAAGAGACAACAGATGGGGAGCGCAGTGTGGGCCGCATCAGCCTTTACTCAA  
 GAATGGCGTGGCCTGCTACCTTACCAACCGTGGCTGCCGCATCCCCAAGGACGTGGTTGAGGAATTCAGC  
 GATTTATACAACGAGGTCTATAACATGACCCAGGAGTTCTTCCGGCATGGTAAACCAGTCAATGCCGAGA  
 GTCAGAACAGCGTCGGGGTGTCCACCCGGGAGAAGGTGCGGAATCGCATCAGGGATGACCCTGACGACAC  
 AGAGGCCACCAAGCGCCTGAAGCTCGCCATGATCCAGCAGTACCTGAAGGTGGAGAGCTGTGAGAGCAGC  
 TCCACAGCATAGATGAGGTGTCCCTGAGCGCCTTTGGAGAATGGACGGAGATCCAGGGCGCCATCACA  
 TCATCCCCTCGGGCTTCATGCGAGTTGTGGAGCTGCTGGCTGAGGGCATTCTCCACATGTCATCCAGTT  
 GGGGAAGCCGGTCCGTTGCATCCACTGGGACCAGGCCTCGGCTCACCCCGGGGTCTGAGATCGAGCCC  
 CGTGGTGAAGGTGATCACAATCACGACACTGGGAGGGTGGCCAGAGTGGAGAGAATCCGCAGCAGGGGA  
 GGTGGGACGAGGATGAGCCGTGGCCTGTAGTCGTGGAGTGCAGGATTGCCAGGTGATCCAGCGGACCA  
 CGTGATTGTGACCGTTTCGCTGGCGTGCCTAAGAGGCAGTACACCAGTTTCTTTAGGCCATGCCTGCC  
 ACGGAGAAGGTGGCCGCCATCCACCGCTGGGCATTGGTACCAGTACAAGATCTTCTTGAATTTGAGG  
 AGCCCTTTTGGGCCCCGAGTGCAACAGCCTGCAGTTCGTGTGGGAGGATGAGGCAGAGAGCTGTACCT  
 CACCTACCCACCTGAGCTCTGGTACCGCAAGATCTGTGGCTTCGATGTCCTTTATCCGCCAGAGCGCTAT  
 GGCCATGTGCTGAGTGGCTGGATCTGTGGGAGGAGGCTCTTGTGATGGAGAGGTGCGATGACGAGGCTG  
 TAGCTGAGATCTGCACAGAGATGCTTCGACAGTTCACAGGTGGGCTCAAGTGGGGCGGATGTGGAGAAGC  
 TAGCCAAGCCCCTGCCCTACACAGAGAGCTCCAAGACAGCGCCATGCAGGTGCTCTTCTCCGGGGAGGC  
 CACACACCGCAAGTACTACTCCACCACCCACGGTCTCTGCTCTGCTGCTGCGCCAGCGGAGGCCCGCCGCTC  
 ATCGAGATGTACCGAGACCTCTCCAGCAGGGGCCCTGAAAGGTGTCCTCACTGCCAAATGTGTTCTTG  
 A

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-Mlul

**ACCN:** NM\_001177834

**Insert Size:** 1611 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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\\_001177834.1](#), [NP\\_001171305.1](#)

**RefSeq Size:** 2101 bp

**RefSeq ORF:** 1611 bp

**Locus ID:** 228608

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

**Cytogenetics:** 2 F1

**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]

Transcript Variant: This variant (3) uses a different splice site and lacks an alternate exon, which shifts the reading frame, compared to variant 1. The resulting protein (isoform c) is shorter and has a distinct C-terminus when it is compared to isoform a. This variant has also been called 'splice variant beta'.