

## Product datasheet for **MG208801**

### Smox (NM\_145533) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Smox (NM_145533) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Smox
Synonyms:	B130066H01Rik; PAO; PAOh1; SMO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG208801 representing NM\_145533  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCAAAGTTGTGAATCCAGTGGCGACAGTGGGATGACCCTCTCAGTCGTGGCCTACGGAGAAGGGGAC  
 AGCCTCGTGTGGTGTGATCGGTGCTGGCTGGCTGGCTGCAGCTAGAGCCCTTCTGGAGCAGGG  
 CTTACCGGATGTCACTGTGCTTGAAGCTTCCAGCCACATTGGGGCCGTGTGCAGAGTGTGAGGCTTGA  
 GACACCACCTTTGAGCTGGGAGCCACCTGGATCCATGGATCCCACGGGAATCCTATCTATCAACTAGCAG  
 AAGCCAATGGCCTTTTGAAGAGACAACAGATGGGGAGCGCAGTGTGGCCGCATCAGCCTTTACTCAA  
 GAATGGCGTGGCCTGCTACCTTACCAACCGTGGCTGCCGCATCCCCAAGGACGTGGTTGAGGAATTCAGC  
 GATTTATACAACGAGGTCTATAACATGACCCAGGAGTTCTTCCGGCATGGTAAACCAGTCAATGCCGAGA  
 GTCAGAACAGCGTCGGGGTGTCCACCCGGGAGAAGGTGCGGAATCGCATCAGGGATGACCCTGACGACAC  
 AGAGGCCACCAAGCGCCTGAAGCTCGCCATGATCCAGCAGTACCTGAAGTGGAGAGCTGTGAGAGCAGC  
 TCCCACAGCATAGATGAGGTGTCCCTGAGCGCCTTTGGAGAATGGACGGAGATCCCAGGGCCCCATCACA  
 TCATCCCCTCGGGCTTCATGCGAGTTGTGGAGCTGCTGGCTGAGGGCATTCTCCACATGTCATCCAGTT  
 GGGGAAGCCGGTCCGTTGCATCCACTGGGACCAGGCCTCGGCTCACCCCGGGGTCTGAGATCGAGCCC  
 CGTGGTGAAGGTGATCACAATCAGCAGCTGGGAGGGTGGCCAGAGTGGAGAGAATCCGACGAGGGGA  
 GGTGGGACGAGGATGAGCCGTGGCTGTAGTCGTGGAGTGCAGGATTGCGAGGTGATCCAGCGGACCA  
 CGTGATTGTGACCGTTTCGCTGGCGTGTCAAGAGGCAGTACACCAGTTCTTTAGGCCATGCCTGCC  
 ACGGAGAAGTGGCCGCCATCCACCGCTGGGCATTGGTACCAGTACAAGATCTTCTTGAATTTGAGG  
 AGCCCTTTTGGGCCCCGAGTGCAACAGCCTGCAGTTCTGTGGGAGGATGAGGCAGAGCTGTACCT  
 CACCTACCCACCTGAGCTCTGGTACCGCAAGATCTGTGGCTTCGATGTCCTTTATCCGCCAGAGCGCTAT  
 GGCCATGTGCTGAGTGGCTGGATCTGTGGGAGGAGGCTCTTGTGATGGAGAGTGCAGTACGAGGCTG  
 TAGCTGAGATCTGCACAGAGATGCTTCGACAGTTCACAGGGAACCCCAATATACCAAAACCTAGGCGAAT  
 CCTGCGCTCAGCCTGGGCGAGCAACCCATACTCCGGGTTTCTATTCTACACAGAGTGGGCTCAAGT  
 GGGGCGGATGTGGAGAAGCTAGCCAAGCCCTGCCCTACACAGAGAGCTCCAAGACAGCGCCATGCAGG  
 TGCTCTTCTCCGGGGAGGCCACACACCGCAAGTACTACTCCACCACCCACGGTGTCTGTCTCTGGCCA  
 GCGCGAGGCCGCCGGCTCATCGAGATGTACCGAGACCTTCCAGCAGGGGCC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG208801 representing NM\_145533  
 Red=Cloning site Green=Tags(s)

MQSCESSGDSADDPLSRGLRRRQPRVVVIGAGLAGLAAARALLEQFTDVTVLEASSHIGGRVQSVRLG  
 DTTFELGATWIHGSHGNPIYQLAEANGLLEETDGERSVGRISLYSKNGVACYLTNRGRIPKDVVEEFS  
 DLYNEVYNMTQEFFRHGKPVNAESQNSVGFVTFREKVRNRIRDDPDDTEATKRLKLAMIQQYLKVESCESS  
 SHSIDEVLSLAFGEWTEIPGAHHIIPSGFMRVVELLAEGIPPHVIQLGKPVRCIHWDQASAHPRGPEIEP  
 RGEDHNHDTGEGGQSGENPQQGRWDEDEPWPVVVECEDCEVIPADHVIVTVSLGVLKRQYTSFFRPCLP  
 TEKVAAIHRLIGITTDKIFLEFEFPWGPENCNLSQFVWEDEAESCTLTYPPELWYRKICGFDVLYPPER  
 GHVLSGWICGEEALVMERCDEAVAEICTEMLRQFTGNPNIPKPRRILRSWGSNPYFRGSYSYTVQVSS  
 GADVEKLAKPLPYTESSKTAPMQVLFSGEATHRKYYSTHALLSGQREARLIEMYRDLFQQGP

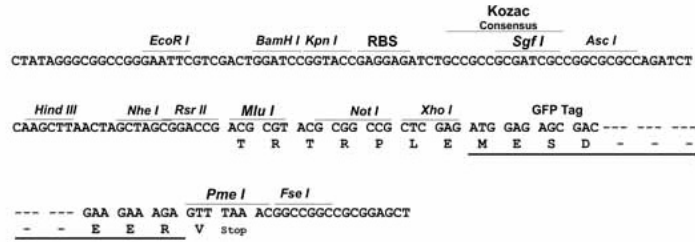
**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

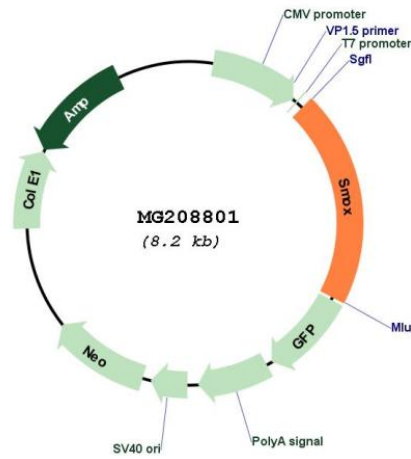
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



<b>ACCN:</b>	NM_145533
<b>ORF Size:</b>	1665 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_145533.2</a> , <a href="#">NP_663508.1</a>
<b>RefSeq Size:</b>	2190 bp
<b>RefSeq ORF:</b>	1668 bp
<b>Locus ID:</b>	228608
<b>UniProt ID:</b>	<a href="#">Q99K82</a>
<b>Cytogenetics:</b>	2 F1
<b>Gene Summary:</b>	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]