

## Product datasheet for **MG219793**

### Smox (NM\_001177839) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Smox (NM_001177839) 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)
ORF Nucleotide Sequence:	>MG219793 representing NM_001177839 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCAAAGTTGTGAATCCAGTGGCGACAGTGCCGATGACCCTCTCAGTCGTGGCCTACGGAGAAGGGGAC  
AGCCTCGTGTGGTGGTATCGGTGCTGGCTTGGCTGGCTGGCTGCAGCTAGAGCCCTTCTGGAGCAGGG  
CTTCACGGATGTCAGTGTGCTTGGGCTCCAGCCACATTGGGGCCGTGTGCAGAGTGTGAGGCTTGA  
GACACCACCTTTGAGCTGGGAGCCACCTGGATCCATGGATCCCACGGGAATCCTATATCAACTAGCAG  
AAGCCAATGGCCTTTTGAAGAGACAACAGATGGGGAGCGCAGTGTGGCCGCATCAGCCTTACTCCAA  
GAATGGCGTGGCCTGCTACCTTACCAACCGTGGCTGCCGATCCCAAGGACGTGTTGAGGAATTCAGC  
GATTTATAACAACGAGGTCTATAACATGACCCAGGAGTTCTTCCGGCATGGTAAACCAGTCAATGCCGAGA  
GTCAGAACAGCGTCGGGGTGTTCACCCGGGAGAAGGTGCGGAATCGCATCAGGGATGACCCTGACGACAC  
AGAGGCCACCAAGCGCTGAAGCTCGCCATGATCCAGCAGTACCTGAAGGGAACCCCAATATACCAAAAC  
CTAGGCGAATCCTGCGCTCAGCTGGGGCAGCAACCCATACTTCCGGGGTTCTATTCTACACACAGGT  
GGGCTCAAGTGGGGCGGATGTGGAGAAGC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG219793 representing NM\_001177839  
 Red=Cloning site Green=Tags(s)

MQSCCESSGDSADDPLSRGLRRRQPRVVVIGAGLAGLAAARALLEQGFTDVTVLEASSHIGGRVQSVRLG  
 DTTFELGATWIHGSHGNPIYQLAEANGLLEETTDGERSVGRISL YSKNGVACYL TNRGCRIPKDVVEEFS  
 DLYNEVYNMTQEFFRHGKPVNAESQNSVGVFTREKVRNRIRDDPDDTEATKRLKLAMIQQYLKGTPIYQN  
 LGESCAQPGAATHTSQVPIPTHWAQVGRMWRS

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001177839

**ORF Size:** 729 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\\_001177839.1](#), [NP\\_001171310.1](#)

**RefSeq Size:** 1430 bp

**RefSeq ORF:** 732 bp

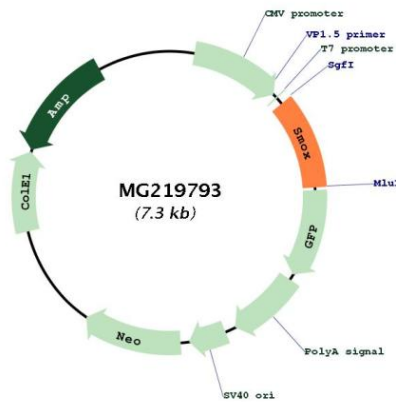
**Locus ID:** 228608

**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]

### Product images:



Circular map for MG219793