

## Product datasheet for **MG219789**

### Smox (NM\_001177835) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Smox (NM_001177835) 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:**

>MG219789 representing NM\_001177835  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCAAAGTTGTGAATCCAGTGGCGACAGTGGGATGACCTCTCAGTCGTGGCCTACGGAGAAGGGGAC  
 AGCCTCGTGTGGTGTATCGGTGCTGGCTTGGCTGGCCTGGCTGCAGCTAGAGCCCTTCTGGAGCAGGG  
 CTTACCGGATGTCACTGTGCTTGAAGCTTCCAGCCACATTGGGGCCGTGTGCAGAGTGTGAGGCTTGGA  
 GACACCACCTTTGAGCTGGGAGCCACCTGGATCCATGGATCCCACGGGAATCCTATCTATCAACTAGCAG  
 AAGCCAATGGCCTTTTGAAGAGACAACAGATGGGGAGCGCAGTGTGGCCGCATCAGCCTTTACTCAA  
 GAATGGCGTGGCCTGCTACCTTACCAACCGTGGCTGCCGCATCCCCAAGGACGTGGTTGAGGAATTCAGC  
 GATTTATACAACGAGGTCTAACATGACCCAGGAGTTCTTCCGGCATGGTAAACCAGTCAATGCCGAGA  
 GTCAGAACAGCGTCGGGGTGTCCACCCGGGAGAAGGTGCGGAATCGCATCAGGGATGACCCTGACGACAC  
 AGAGGCCACCAAGCGCCTGAAGCTCGCCATGATCCAGCAGTACCTGAAGGTGGAGAGCTGTGAGAGCAGC  
 TCCCACAGCATAGATGAGGTGTCCCTGAGCGCCTTTGGAGAATGGACGGAGATCCCAGGCCCCATCACA  
 TCATCCCCTCGGGCTTCATGCGAGTTGTGGAGCTGCTGGCTGAGGGCATTCTCCACATGTCATCCAGTT  
 GGGGAAGCCGGTCCGTTGCATCCACTGGGACCAGGCCTCGGCTCACCCCGGGGTCTGAGATCGAGCCC  
 CGTGGTGAAGGTGATCACAATCACGACACTGGGAGGGTGGCCAGAGTGGAGAGAATCCGCAGCAGGGGA  
 GGTGGGACGAGGATGAGCCGTGGCTGTAGTCGTGGAGTGCAGGATTGCGAGGTGATCCAGCGGACCA  
 CGTGATTGTGACCGTTTCGCTGGCGTGTCAAGAGGCAGTACACCAGTTCTTTAGGCCATGCCTGCC  
 ACGGAGAAGTGGCCGCCATCCACCGCTGGGCATTGGTACCAGTACAAGATCTTCTTGAATTTGAGG  
 AGCCCTTTTGGGCCCCGAGTGCAACAGCCTGCAGTTCGTGTGGGAGGATGAGGCAGAGAGCTGTACCT  
 CACCTACCCACCTGAGCTCTGGTACCGCAAGATCTGTGGCTTCGATGTCCTTTATCCGCCAGAGCGCTAT  
 GGCCATGTGCTGAGTGGCTGGATCTGTGGGAGGAGGCTCTTGTGATGGAGAGTGCAGTACGAGGCTG  
 TAGCTGAGATCTGCACAGAGATGCTTCGACAGTTCACAGCCATGCAGGTGCTCTTCTCCGGGAGGCCA  
 CACACCGCAAGTACTACTCCACCACCCAGGTGCTCTGCTCTCTGGCCAGCGGAGGCCGCCCGGCTCAT  
 CGAGATGTACCGAGACCTCTCCAGCAGGGCCCTGAAAGGTGTCCTCACTGCCAAATGTGTTCT

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG219789 representing NM\_001177835  
 Red=Cloning site Green=Tags(s)

MQSCSSGDSADDPLSRGLRRRQPRVVVIGAGLAGLAAARALLEQGFTDVTVLEASSHIGGRVQSVRLG  
 DTTFELGATWIHGSHGNPIYQLAEANGLLEETDGERSVGRISLYSKNGVACYLTNRGCRIPKDVVEEFS  
 DLYNEVYNTQEFRRHGKPVNAESQNSVGVFTREKVRNIRDDPDDTEATKRLKLAAMIQQYLKVESCESS  
 SHSIDEVSLSAFGEWTEIPGAHHIIPSGFMRVVELLAEGIPPHVIQLGKPVRCIHWDAQASAHPRGPEIEP  
 RGEDHNHDTGEGGQSGENPQQGRWDEDEPWVVECEDCEVIPADHVIIVTVSLGVLKRQYTSFFRPCLP  
 TEKVAAIHRLLIGITTDKIFLEFEFPWGPENCNSLQFVWEDEAESCTLTYPPELWYRKICGFVLYPPER  
 GHVLSGWICGEEALVMERCDDAEVAEICTEMLRQFTAAGALLRGGHTPQVLLHHPRCALSALWPARGRAH  
 RDVPRPLPAGALKGVLTA KCVP

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001177835

**ORF Size:** 1536 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\\_001177835.1](#), [NP\\_001171306.1](#)

**RefSeq Size:** 2029 bp

**RefSeq ORF:** 1539 bp

**Locus ID:** 228608

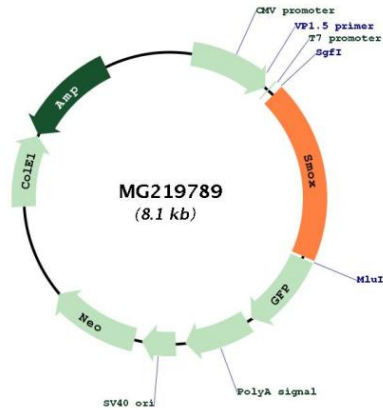
**UniProt ID:** [Q99K82](#)

**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 MG219789