

Product datasheet for **MG219790**

Smox (NM_001177836) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Smox (NM_001177836) 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: >MG219790 representing NM_001177836
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGATCGCC

ATGCAAAGTTGTGAATCCAGTGGCGACAGTGCGGATGACCCTCTCAGTCGTGGCTACGGAGAAGGGGAC
 AGCCTCGTGTGGTGGTATCGGTGCTGGCTTGGCTGGCTGGCTGCAGCTAGAGCCCTTCTGGAGCAGGG
 CTTACGGATGCACTGTGCTTGAGGCTTCCAGCCACATTGGGGCCGTGTGCAGAGTGTGAGGCTTGA
 GACACCACCTTTGAGCTGGGAGCCACCTGGATCCATGGATCCCACGGGAATCCTATCTATCAACTAGCAG
 AAGCCAATGGCCTTTTGAAGAGACAACAGATGGGGAGCGCAGTGTGGCCGCATCAGCCTTACTCCAA
 GAATGGCGTGGCCTGCTACCTTACCAACCGTGGCTGCCGATCCCAAGGACGTGGTTGAGGAATTCAGC
 GATTTATAACAACGAGGTCTATAACATGACCCAGGAGTTCTCCGGCATGGTAAACCAGTCAATGCCGAGA
 GTCAGAACAGCGTCGGGGTGTTCACCCGGGAGAAGGTGCGGAATCGCATCAGGGATGACCCTGACGACAC
 AGAGGCCACCAAGCGCCTGAAGCTCGCCATGATCCAGCAGTACCTGAAGGTGGAGAGCTGTGAGAGCAGC
 TCCCACAGCATAGATGAGGTGTCCTGAGCGCCTTGGAGAATGGACGGAGATCCCAGGCCCCATCACA
 TCATCCCTCGGGCTTCATGCGAGTTGTGGAGCTGCTGGCTGAGGGCATTCTCCACATGTCATCCAGTT
 GGGGAAGCCGGTCCGTTGCATCCACTGGGACCAGGCCCTCGGCTCACCCCGGGGTCTGAGATCGAGCCC
 CGTGAGCGCTATGGCCATGTGCTGAGTGGCTGGATCTGTGGGGAGGAGGCTCTTGTGATGGAGAGGTGCG
 ATGACGAGGCTGTAGCTGAGATCTGCACAGAGATGCTTCGACAGTTACACAGGGAACCCCAATATACCAA
 ACCTAGGCGAATCCTGCGCTCAGCCTGGGGCAGCAACCCATACTTCCGGGTTCTATTCTACACACAG
 GTGGGCTCAAGTGGGGCGGATGTGGAGAAGCTAGCCAAGCCCCTGCCCTACACAGAGAGCTCCAAGACAG
 CGCCCATGCAGGTGCTCTTCTCCGGGGAGGCCACACACCAGTACTACTCCACCACCCACGGTGTCTCT
 GCTCTCTGGCCAGCGGAGGCCGCCCGGCTCATCGAGATGTACCGAGACCTTCCAGCAGGGGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG219790 representing NM_001177836
 Red=Cloning site Green=Tags(s)

MQSCESSGDSADDPLSRGLRRRQPRVVVIGAGLAGLAAARALLEQGFTDVTVLEASSHIGGRVQSVRLG
 DTTFELGATWIHGSHGNPIYQLAEANGLLEETTDGERSVGRISL YSKNGVACYL TNRGCRIPKDVVEEFS
 DLYNEVYNMTQEFFRHGKPVNAESQNSVGVFTREKVRNRIRDDPDDTEATKRLKLAMIQQYLKVESCESS
 SHSIDEVLSL SAFGEWTEIPGAHHIIPSGFMRVVELLAEGIPPHVIQLGKPVRCIHWDQASAHPRGPEIEP
 RERYGHVLSGWICGEEALVMERCDEAVAEICTEMLRQFTGNPNIPKPRRILRSAWGSNPYFRGSYSYTO
 VGSSGADVEKLAKPLPYTESSKTAPMQVLFSGEATHRKYYSTTHGALLSGQREARLIEMYRDLFQQGP

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001177836

ORF Size: 1257 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_001177836.1](#), [NP_001171307.1](#)

RefSeq Size: 1782 bp

RefSeq ORF: 1260 bp

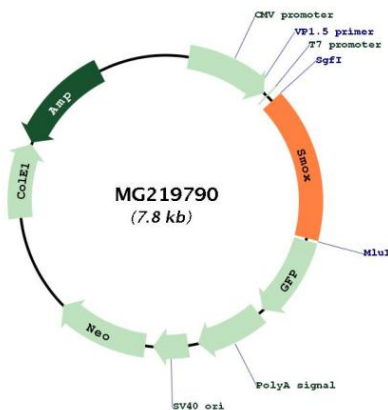
Locus ID: 228608

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 MG219790