

Product datasheet for MR219793

Smox (NM_001177839) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Smox (NM_001177839) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Smox
Synonyms: B130066H01Rik; PAO; PAOh1; SMO
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR219793 representing NM_001177839
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCAAAGTTGTGAATCCAGTGGCGACAGTGCCGATGACCCTCTCAGTCGTGGCCTACGGAGAAGGGGAC
AGCCTCGTGTGGTGGTATCGGTGCTGGCTTGGCTGGCTGGCTGCAGCTAGAGCCCTTCTGGAGCAGGG
CTTCACGGATGCACTGTGCTTGAGGCTTCCAGCCACATTGGGGCCGTGTGCAGAGTGTGAGGCTTGA
GACACCACCTTTGAGCTGGGAGCCACCTGGATCCATGGATCCCACGGGAATCCTATATCAACTAGCAG
AAGCCAATGGCCTTTTGAAGAGACAACAGATGGGGAGCGCAGTGTGGGCCGCATCAGCCTTTACTCAA
GAATGGCGTGGCCTGCTACCTTACCAACCGTGGCTGCCGATCCCAAGGACGTGTTGAGGAATTCAGC
GATTTATAACAACGAGGTCTATAACATGACCCAGGAGTTCTTCCGGCATGGTAAACCAGTCAATGCCGAGA
GTCAGAACAGCGTCGGGGTGTTCACCCGGGAGAAGGTGCGGAATCGCATCAGGGATGACCCTGACGACAC
AGAGGCCACCAAGCGCTGAAGCTCGCCATGATCCAGCAGTACCTGAAGGGAACCCCAATATACAAAAC
CTAGGCGAATCCTGCGCTCAGCTGGGGCAGCAACCCATACTTCCGGGGTTCTATTCTACACACAGGT
GGGCTCAAGTGGGGCGGATGTGGAGAAGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR219793 representing NM_001177839
Red=Cloning site Green=Tags(s)

MQSCCESSGDSADDPLSRGLRRRQPRVVVIGAGLAGLAAARALLEQGFTDVTVLEASSHIGGRVQSVRLG
 DTTFELGATWIHGSHGNPIYQLAEANGLLEETTDGERSVGRISL YSKNGVACYL TNRGCRIPKDVVEEFS
 DLYNEVYNMTQEFRRHGKPVNAESQNSVGVFTREKVRNRIRDDPDDTEATKRLKLAMIQQYLKGTPIYQN
 LGESCAQPGAATHTSQVPIPTHRWAQVGRMWRS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



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

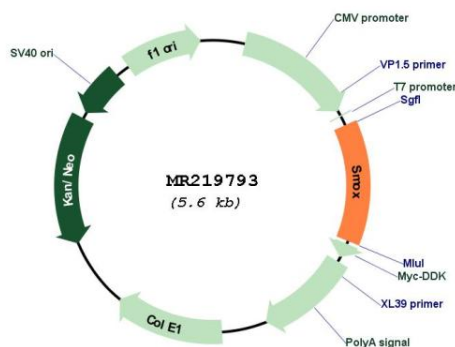
UniProt ID: [Q99K82](#)

Cytogenetics: 2 F1

MW: 27.1 kDa

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 MR219793