

Product datasheet for MR219791

Smox (NM_001177837) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smox (NM_001177837) 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:	>MR219791 representing NM_001177837 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCAAAGTTGTGAATCCAGTGGCGACAGTGCGGATGACCCTCTCAGTCGTGGCTACGGAGAAGGGGAC
AGCCTCGTGTGGTGGTATCGGTGCTGGCTGGCTGGCTGCAGCTAGAGCCCTTCTGGAGCAGGG
CTTACGGATGCACTGTGCTTGAGGCTCCAGCCACATTGGGGCCGTGTGCAGAGTGTGAGGCTTGA
GACACCACCTTTGAGCTGGGAGCCACCTGGATCCATGGATCCCACGGGAATCCTATCTATCAACTAGCAG
AAGCCAATGGCCTTTTGAAGAGACAACAGATGGGGAGCGCAGTGTGGCCGCATCAGCCTTTACTCCAA
GAATGGCGTGGCCTGCTACCTTACCAACCGTGGCTGCCGATCCCAAGGACGTGGTTGAGGAATTCAGC
GATTTATAACAACGAGGTCTATAACATGACCCAGGAGTTCTTCCGGCATGGTAAACCAGTCAATGCCGAGA
GTCAGAACAGCGTCGGGGTGTTCACCCGGGAGAAGGTGCGGAATCGCATCAGGGATGACCCTGACGACAC
AGAGGCCACCAAGCGCTGAAGCTCGCCATGATCCAGCAGTACCTGAAGGAGCCCTTTGGGGCCCCGAG
TGCAACAGCCTGCAGTTCGTGTGGGAGGATGAGGCAGAGAGCTGTACCCTCACCTACCCACTGAGCTCT
GGTACCGAAGATCTGTGGCTTCGATGTCCTTTATCCGCCAGAGCGCTATGGCCATGTGCTGAGTGGCTG
GATCTGTGGGGAGGAGGCTTTGTATGGAGAGGTGCGATGACGAGGCTGTAGCTGAGATCTGCACAGAG
ATGCTTCGACAGTTCACAGGGAACCCCAATATACCAAACTAGGCGAATCCTGCGCTCAGCCTGGGGCA
GCAACCCATACTCCGGGGTTCCTATTCTACACACAGGTGGGCTCAAGTGGGGCGGATGTGGAGAAGCT
AGCCAAGCCCCTGCCCTACACAGAGAGCTCCAAGACAGCGCCATGCAGGTGCTCTTCTCCGGGGAGGCC
ACACACCGAAGTACTACTCCACCACCCAGGTGCTGCTCTCTGGCCAGCGGAGGCCGCCCGCTCA
TCGAGATGTACCGAGACCTCTCCAGCAGGGGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR219791 representing NM_001177837
Red=Cloning site Green=Tags(s)

MQSCCESSGDSADDPLSRGLRRRQPRVVVIGAGLAGLAAARALLEQGFTDVTVLEASSHIGGRVQSVRLG
 DTTFELGATWIHGSHGNPIYQLAEANGLLEETTDGERSVGRISL YSKNGVACYL TNRGCRIPKDVVEEFS
 DLYNEVYNMTQEFFRHGKPVNAESQNSVGVFTREKVRNRIRDDPDDTEATKRLKLAMIQQYLKEPFWGPE
 CNSLQFVWEDEAESCTLTYPPELWYRKICGFVDLYPPERVGHVLSGWICGEEALVMERCDDAEVAEICTE
 MLRQFTGNPNIPKPRRILRSAWGSNPYFRGSYSYTVQVSSGADVEKLAKPLPYTESSKTAPMQVLFSGEA
 THRKYYSTTHGALLSGQREAARLIEMYRDLFQQGP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001177837

ORF Size: 1155 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_001177837.1](#), [NP_001171308.1](#)

RefSeq Size: 1680 bp

RefSeq ORF: 1158 bp

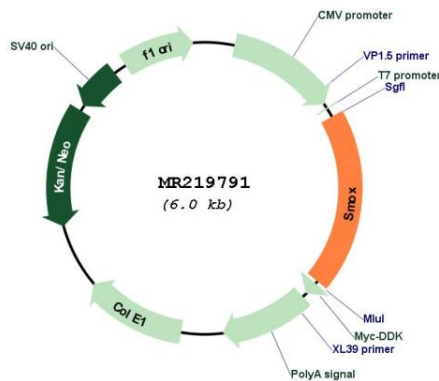
Locus ID: 228608

Cytogenetics: 2 F1

MW: 43.5 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 MR219791