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Product datasheet for MR219788

Smox (NM_001177834) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smox (NM_001177834) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Smox
Synonyms:	B130066H01Rik; PAO; PAOh1; SMO
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

ORF Nucleotide Sequence:

>MR219788 representing NM_001177834
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCAAAGTTGTGAATCCAGTGGCGACAGTGCGGATGACCCTCTCAGTCGTGGCCTACGGAGAAGGGGAC
AGCCTCGTGTGGTGGTGATCGGTGCTGGCTTGGCTGGCCTGGCTGCAGCTAGAGCCCTTCTGGAGCAGGG
CTTCACGGATGTCACTGTGCTTGAGGCTTCCAGCCACATTGGGGGCCGTGTGCAGAGTGTGAGGCTTGGA
GACACCACCTTTGAGCTGGGAGCCACCTGGATCCATGGATCCCACGGGAATCCTATCTATCAACTAGCAG
AAGCCAATGGCCTTTTGGAAGAGACAACAGATGGGGAGCGCAGTGTGGGCCGCATCAGCCTTTACTCCAA
GAATGGCGTGGCCTGCTACCTTACCAACCGTGGCTGCCGCATCCCCAAGGACGTGGTTGAGGAATTCAGC
GATTTATACAACGAGGTCTATAACATGACCCAGGAGTTCTTCCGGCATGGTAAACCAGTCAATGCCGAGA
GTCAGAACAGCGTCGGGGTGTTCACCCGGGAGAAGGTGCGGAATCGCATCAGGGATGACCCTGACGACAC
AGAGGCCACCAAGCGCCTGAAGCTCGCCATGATCCAGCAGTACCTGAAGGTGGAGAGCTGTGAGAGCAGC
TCCCACAGCATAGATGAGGTGTCCCTGAGCGCCTTTGGAGAATGGACGGAGATCCCAGGCGCCCATCACA
TCATCCCCTCGGGCTTCATGCGAGTTGTGGAGCTGCTGGCTGAGGGCATTCCTCCACATGTCATCCAGTT
GGGGAAGCCGGTCCGTTGCATCCACTGGGACCAGGCCTCGGCTCACCCCCGGGGTCCTGAGATCGAGCCC
CGTGGTGAGGGTGATCACAATCACGACACTGGGGAGGGTGGCCAGAGTGGAGAGAATCCGCAGCAGGGGA
GGTGGGACGAGGATGAGCCGTGGCCTGTAGTCGTGGAGTGCGAGGATTGCGAGGTGATCCCAGCGGACCA
CGTGATTGTGACCGTTTCGCTGGGCGTGCTCAAGAGGCAGTACACCAGTTTCTTTAGGCCATGCCTGCCC
ACGGAGAAGGTGGCCGCCATCCACCGCCTGGGCATTGGTACCACTGACAAGATCTTCCTTGAATTTGAGG
AGCCCTTTTGGGGCCCCGAGTGCAACAGCCTGCAGTTCGTGTGGGAGGATGAGGCAGAGAGCTGTACCCT
CACCTACCCACCTGAGCTCTGGTACCGCAAGATCTGTGGCTTCGATGTCCTTTATCCGCCAGAGCGCTAT
GGCCATGTGCTGAGTGGCTGGATCTGTGGGGAGGAGGCTCTTGTCATGGAGAGGTGCGATGACGAGGCTG
TAGCTGAGATCTGCACAGAGATGCTTCGACAGTTCACAGGTGGGCTCAAGTGGGGCGGATGTGGAGAAGC
TAGCCAAGCCCCTGCCCTACACAGAGAGCTCCAAGACAGCGCCCATGCAGGTGCTCTTCTCCGGGGAGGC
CACACACCGCAAGTACTACTCCACCACCCACGGTGCTCTGCTCTCTGGCCAGCGCGAGGCCGCCCGGCTC
ATCGAGATGTACCGAGACCTCTTCCAGCAGGGGCCCTGAAAGGTGTCCTCACTGCCAAATGTGTTCCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

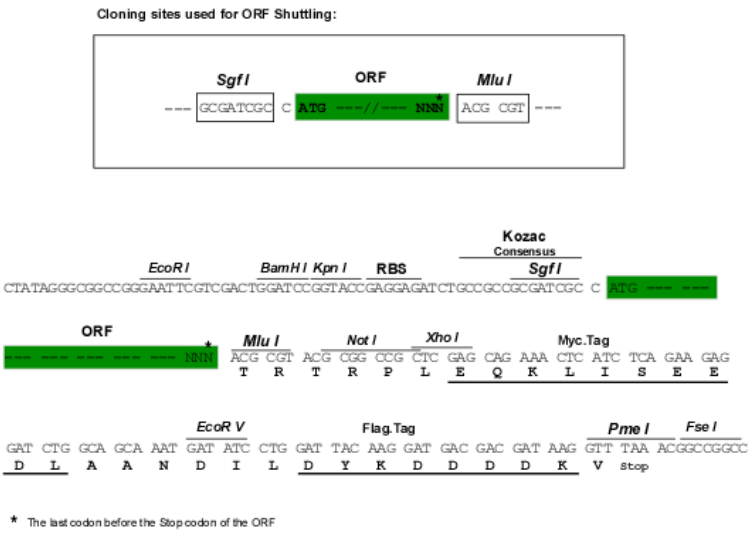
>MR219788 representing NM_001177834
Red=Cloning site Green=Tags(s)

MQSCESSGDSADDPLSRGLRRRGQPRVVVIGAGLAGLAAARALLEQGFTDVTVLEASSHIGGRVQSVRLG
DTTFELGATWIHGSHGNPIYQLAEANGLLEETTDGERSVGRISLYSKNGVACYLTNRGCRIPKDVVEEFS
DLYNEVYNMTQEFFRHGKPVNAESQNSVGVFTREKVRNRIRDDPDDTEATKRLKLAMIQQYLKVESCESS
SHSIDEVSLSAFGEWTEIPGAHHIIPSGFMRVVELLAEGIPPHVIQLGKPVRCIHWDQASAHPRGPEIEP
RGEGDHNHDTGEGGQSGENPQQGRWDEDEPWPVVVECEDCEVIPADHVIVTVSLGVLKRQYTSFFRPCLP
TEKVAAIHRLGIGTTDKIFLEFEEPFWGPECNSLQFVWEDEAESCTLTYPPELWYRKICGFDVLYPPERY
GHVLSGWICGEEALVMERCDDEAVAEICTEMLRQFTGGLKWGGCGEASQAPALHRELQDSAHAGALLRGG
HTPQVLLHHPRCSALWPARGRPAHRDVPRPLPAGALKGVLTAKCVP

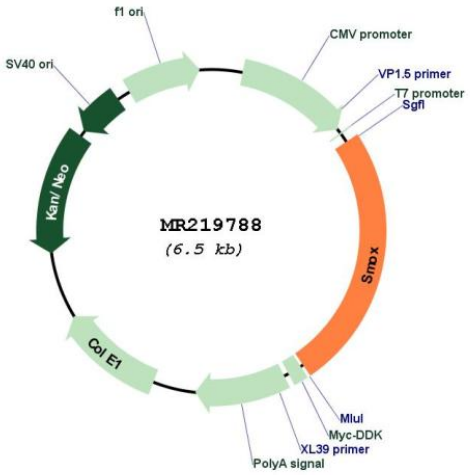
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001177834
ORF Size:	1608 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_001177834.1, NP_001171305.1
RefSeq Size:	2101 bp
RefSeq ORF:	1611 bp
Locus ID:	228608
UniProt ID:	Q99K82
Cytogenetics:	2 F1
MW:	59.6 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]