

## Product datasheet for RC214652

### SMOX (NM\_175841) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** SMOX (NM\_175841) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** SMOX  
**Synonyms:** C20orf16; PAO; PAO-1; PAO1; PAOH; PAOH1; SMO  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC214652 representing NM\_175841  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCAAAGTTGTGAATCCAGTGGTGACAGTGCCGATGACCCTCTCAGTCGCGGCCTACGGAGAAGGGGAC  
AGCCTCGTGTGGTGGTATCGGCGCCGGCTTGGCTGGCTGGCTGCAGCCAAAGCACTTCTTGAGCAGGG  
TTTCACGGATGTCAGTGTGCTTGGAGCTTCCAGCCACATCGGAGGCCGTGTGCAGAGTGTGAACTTGA  
CAGCCACCTTTGAGCTGGGAGCCACCTGGATCCATGGCTCCCATGGGAACCCTATCTATCATCTAGCAG  
AAGCCAACGGCCTCCTGGAAGAGACAACCGATGGGGAACGCAGCGTGGGCCGCATCAGCCTCTATCCAA  
GAATGGCGTGGCCTGCTACCTTACCAACCACGGCCGAGGATCCCAAGGACGTGGTTGAGGAATTCAGC  
GATTTATAACAACGAGCCCATGCAGGTGCTGTTTTCCGGTGAGGCCACCCACCGCAAGTACTATCCACCA  
CCCACGGTGTCTGTGCTCCGGCCAGCGTGAAGGCTGCCCGCCTCATTGAGATGTACCGAGACCTCTCCA  
GCAGGGGACC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC214652 representing NM\_175841  
Red=Cloning site Green=Tags(s)

MQSCSSGDSADDPLSRGLRRRQPRVVVIGAGLAGLAAKALLEQGFTDVTVLEASSHIGGRVQSVKLG  
HATFELGATWIHGSHGNPIYHLAEANGLLEETTDGERSVGRISL YSKNGVACYL TNHRRRIPKDVVEEFS  
DLYNEPMQVLFSGEATHRKYYSTTHGALLSGQREARLIEMYRDLFQQGT

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV



Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM\_175841

ORF Size: 570 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\\_175841.3](#)

RefSeq Size: 1154 bp

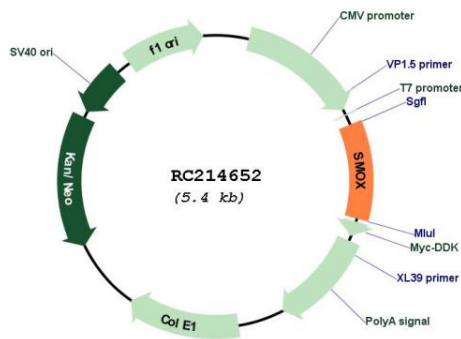
RefSeq ORF: 573 bp

Locus ID: 54498

UniProt ID: [Q9NWM0](#)

<b>Cytogenetics:</b>	20p13
<b>Protein Families:</b>	Druggable Genome
<b>MW:</b>	20.6 kDa
<b>Gene Summary:</b>	<p>Polyamines are ubiquitous polycationic alkylamines which include spermine, spermidine, putrescine, and agmatine. These molecules participate in a broad range of cellular functions which include cell cycle modulation, scavenging reactive oxygen species, and the control of gene expression. These molecules also play important roles in neurotransmission through their regulation of cell-surface receptor activity, involvement in intracellular signalling pathways, and their putative roles as neurotransmitters. This gene encodes an FAD-containing enzyme that catalyzes the oxidation of spermine to spermadine and secondarily produces hydrogen peroxide. Multiple transcript variants encoding different isoenzymes have been identified for this gene, some of which have failed to demonstrate significant oxidase activity on natural polyamine substrates. The characterized isoenzymes have distinctive biochemical characteristics and substrate specificities, suggesting the existence of additional levels of complexity in polyamine catabolism. [provided by RefSeq, Jul 2012]</p>

**Product images:**



Circular map for RC214652