

## Product datasheet for **SC320178**

### SMOX (NM\_175840) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SMOX (NM_175840) Human Untagged Clone
Tag:	Tag Free
Symbol:	SMOX
Synonyms:	C20orf16; PAO; PAO-1; PAO1; PAOH; PAOH1; SMO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_175840.1  
 GTCCCGCGGCGGCTGGAGGAGGAAGCCAGGCGGCTGGCGGAGGAGGAGACGGAGGAG  
 GCCGAGACCGGAGCGCCGCTCGCCGACACTTACTTCCCCGGCTCAGCAGGAAAGGTTCC  
 CTAGAAGGTGAGCGCGGACGGTATGCAAAGTTGTGAATCCAGTGGTGACAGTGCGGATGA  
 CCCTCTCAGTCGCGGCCACGGAGAAGGGGACAGCCTCGTGTGGTGGTATCGGCCCGG  
 CTTGGCTGGCCTGGCTGCAGCCAAAGCACTTCTTGAGCAGGGTTTACGGATGTCAGTGT  
 GCTTAGGCTTCCAGCCACATCGGAGGCCGTGTGCAGAGTGTGAAACTTGGACACGCCAC  
 CTTTGAGCTGGGAGCCACCTGGATCCATGGCTCCCATGGGAACCCATCTATCATCTAGC  
 AGAAGCCAACGGCCTCCTGGAAGAGACAACCGATGGGGAACGCAGCGTGGGCCGATCAG  
 CCTCTATTCCAAGAATGGCGTGGCCTGCTACCTTACCAACCACGGCCGAGGATCCCCAA  
 GGACGTGGTTGAGGAATTCAGCGATTTATAACAACGAGGCTATAACTTGACCCAGGAGTT  
 CTTCCGGCAGATAAACCAAGTCAATGCTGAAAGTCAAAATAGCGTGGGGGTGTTACCCG  
 AGAGGAGTGCATAACCGCATCAGGAATGACCCTGACGACCCAGAGGCTACCAAGCGCT  
 GAAGCTCGCCATGATCCAGCAGTACCTGAAGGTGGAGAGCTGTGAGAGCAGCTCACACAG  
 CATGGACGAGGTGTCCTGAGCGCCTTCGGGGAGTGGACCGAGATCCCCGGCGCTACCA  
 CATCATCCCTCGGGCTTCATGCGGGTTGTGGAGCTGCTGGCGGAGGGCATCCCTGCCCA  
 CGTCATCCAGCTAGGAAACCTGTCGGCTGCATTCACTGGGACCAGGCCTCAGCCCGCCC  
 CAGAGGCCCTGAGATTGAGCCCCGGGTGTGCTAAAGAGGCAGTACACCAGTTTCTTCCG  
 GCCAGGCTGCCACAGAGAAGGTGGCTGCCATCCACCGCTGGGCATTGGCACCACCGA  
 CAAGATCTTTCTGGAATTCGAGGAGCCCTTCTGGGGCCCTGAGTGCAACAGCCTACAGTT  
 TGTGTGGGAGGACGAAGCGGAGAGCCACACCCTCACCTACCCACCTGAGCTCTGGTACCG  
 CAAGATCTGCGGCTTTGATGTCCTTACCCGCTGAGCGCTACGGCCATGTGCTGAGCGG  
 CTGGATCTGCGGGAGGAGGCCCTCGTCATGGAGAAGTGTGATGACGAGGCAGTGGCCGA  
 GATCTGCACGGAGATGCTGCGTCAGTTCACAGGGAACCCCAACATTCCAACAACTCGGCG  
 AATCTTGCCTCGCCTGGGGCAGCAACCCCTTACTTCCGCGGCTCCTATTCATACACGCA  
 GGTGGGCTCCAGCGGGCGGATGTGGAGAAGCTGGCCAAGCCCCTGCCGTACACGGAGAG  
 CTCAAAGACAGCGCCATGCAGGTGCTGTTTTCCGGTGAGGCCACCCACCGCAAGTACTA  
 TTCCACCACCCACGGTCTGCTGTCCGGCCAGCGTGGGCTGCCCGCCTCATTGAGAT  
 GTACCGAGACCTTCCAGCAGGGACCTGAGGGCTGCTCCTCGTGTGAGAAGACCCAC  
 TAACTCGTGACCTCCAGCCTGCCCTTGCTGCCGTGTGCTCCTGCCTTCTGATCCTCTG  
 TAGAAAGGATTTTATCTTCTGTAGAGTAGCCGCCCTGACTGCCTTACAGCCTGGCCCT  
 GTAGCTTTTCTTTTCTCCAGGCTGGGCGTGAGCAGGTGGGCCGTTGAGTTACCTCTGT  
 GCTGGATCCCGTCCCCCACTTGCTACCTCTGTCTGCCTTGTATTGTAAGTGCCTT  
 CAATACTTTGCATTTTGGGATAATAAAAAAGGCTCCCTCCCTGCAAAAAAAAAAAAAA  
 AAAA

**Restriction Sites:** Please inquire

**ACCN:** NM\_175840

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_175840.1</a> , <a href="#">NP_787034.1</a>
<b>RefSeq Size:</b>	2044 bp
<b>RefSeq ORF:</b>	1509 bp
<b>Locus ID:</b>	54498
<b>UniProt ID:</b>	<a href="#">Q9NWM0</a>
<b>Cytogenetics:</b>	20p13
<b>Protein Families:</b>	Druggable Genome
<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> <p>Transcript Variant: This variant (2) lacks an in-frame segment of the coding region, compared to variant 1. It encodes a shorter isoform (2), also known as PAOh2, that is missing an internal segment compared to isoform 1.</p>