

Product datasheet for MC209406

Six2 (NM_011380) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Six2 (NM_011380) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Six2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC209406 representing NM_011380

Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTCCATGCTGCCCACCTTCGGCTTCACGCAGGAGCAAGTGGCGTGCCTGTGCGAGGTGCTGCAGCAGG
 GCGGCAACATCGAGCGGCTGGGTGCTTCCTGTGGTCGCTGCCCGCTGCGAGCACCTCCACAAGAATGA
 AAGCGTGCTCAAGGCCAAGGCCGTGGTGGCTTCCACCGGGGCAACTCCGCGAGCTCTACAAAATCCTG
 GAGAGCCACCAAGTTCTCGCCGACACCAACGCAAGCTGCAGCAGTTGTGGCTCAAGGCGCACTACATCG
 AGGCGGAGAAGTGCAGCGCCGCGCTGGGCGCCGTGGGCAAGTACCGCGTGCGGCGCAAGTTCCCGCT
 GCCCCGCTCCATCTGGGACGGCGAGGAGACCAAGCTACTGCTTCAAGGAGAAGAGCCGAGCGTGTGCGC
 GAGTGGTACGCTCACAACCCCTACCCGTCGCCACGAGAGAAGCGCGAGCTGGCCGAGGCCACCGGCTCA
 CCACCACGCAAGTCAGCAACTGGTTCAAGAACCGCGGCGAGCGGACAGGGCGGCCGAGGCCAAGGAAAG
 GGAGAACAGCGAGAATCCAATTCAGCAGCCACAACCCGCTGGCTTCTCGCTCAATGGCAGTGGCAAG
 TCGGTGCTAGGCAGTTCGAGGATGAGAAGACGCCGTGGGGACTCCAGACCACTCGTCGTCAGTCCCG
 CTCTGTTGCTCAGCCCGCCGCCCTGGGCTGCCTTCCCTGCACAGCCTGGGCCACCTCCGGGCC
 GAGCGCAGTACCGTACCAAGTGGCGGCGCGGACCACTGCAGCATCACCACAGCCTGCAG
 GACTCCATACTCAACCCATGTGCGCAACCTTGTGGACCTGGGCTCCTAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-MluI
ACCN:	NM_011380
Insert Size:	891 bp



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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).
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:	<ol style="list-style-type: none"> 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_011380.2</u> , <u>NP_035510.1</u>
RefSeq Size:	2108 bp
RefSeq ORF:	891 bp
Locus ID:	20472
UniProt ID:	<u>Q62232</u>
Cytogenetics:	17 55.72 cM
Gene Summary:	<p>Transcription factor that plays an important role in the development of several organs, including kidney, skull and stomach. During kidney development, maintains cap mesenchyme multipotent nephron progenitor cells in an undifferentiated state by opposing the inductive signals emanating from the ureteric bud and cooperates with WNT9B to promote renewing progenitor cells proliferation. Acts through its interaction with TCF7L2 and OSR1 in a canonical Wnt signaling independent manner preventing transcription of differentiation genes in cap mesenchyme such as WNT4. Also acts independently of OSR1 to activate expression of many cap mesenchyme genes, including itself, GDNF and OSR1. During craniofacial development plays a role in growth and elongation of the cranial base through regulation of chondrocyte differentiation (PubMed:20515681). During stomach organogenesis, controls pyloric sphincter formation and mucosal growth through regulation of a gene network including NKX2-5, BMPR1B, BMP4, SOX9 and GREM1 (PubMed:19660448). During branchial arch development, acts to mediate HOXA2 control over the insulin-like growth factor pathway (PubMed:18321982). Also may be involved in limb tendon and ligament development (PubMed:7720577). Plays a role in cell proliferation and migration (By similarity).[UniProtKB/Swiss-Prot Function]</p>