

Product datasheet for **SC304557**

NODAL (NM_018055) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: NODAL (NM_018055) Human Untagged Clone
Tag: Tag Free
Symbol: NODAL
Synonyms: HTX5
Mammalian Cell Selection: None
Vector: pCMV6-XL6
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_018055 edited
 GAATTCGCCCTTATAAGGGCTGGAGGTGCTGCTTTTCAGGCCTGGCCAGCCACCATGCAC
 GCCCACTGCCTGCCCTTCTTCTGCACGCCTGGTGGCCCTACTCCAGGCGGGTGTGCG
 ACGGTGGCCACTGCGCTCCTGCGTACGCGGGGGCAGCCCTCGTCGCCATCCCCTCTGGCG
 TACATGCTGAGCCTCTACCGCGACCCGCTGCCGAGGGCAGACATCATCCGACGCTACAG
 GCAGAAGATGTGGCAGTGGATGGGCAGAACTGGACGTTTGTCTTTGACTTCTCCTTCTG
 AGCCAACAAGAGGATCTGGCATGGGCTGAGCTCCGGCTGCAGCTGTCCAGCCCTGTGGAC
 CTCCCCACTGAGGGCTCACTTGCCATTGAGATTTCCACCAGCCAAAGCCCGACACAGAG
 CAGGCTTCAGACAGCTGCTTAGAGCGGTTTCAGATGGACCTATTCCTGTCACTTTGTCC
 CAGGTCACCTTTTCTTGGCAGCATGGTTTTGGAGGTGACCAGGCCTCTCTCCAAGTGG
 CTGAAGCGCCCTGGGGCCCTGGAGAAGCAGATGTCCAGGGTAGCTGGAGAGTGTGGCCG
 CGGCCCCACACCGCCTGCCACCAATGTGCTCCTTATGCTCTACTCAAACCTCTCGCAG
 GAGCAGAGGCAGCTGGGTGGGTCCACCTTGTGTGGGAAGCCGAGAGCTCCTGGCGGGCC
 CAGGAGGGACAGCTGTCTGGGAGTGGGGCAAGAGGCACCGTCGACATCACTTGCCAGAC
 AGAAGTCAACTGTGTCGGAAGGTCAAGTTCAGGTGGACTTCAACCTGATCGGATGGGGC
 TCCTGGATCATCTACCCAAGCAGTACAACGCCTATCGCTGTGAGGGCGAGTGTCTTAAT
 CCTGTTGGGGAGGAGTTTTCATCCGACCAACCATGCATACATCCAGAGTCTGCTGAAACGT
 TACCAGCCCACCGAGTCCCTTCCACTTGTGTGCCCCAGTGAAGACCAAGCCGCTGAGC
 ATGCTGTATGTGGATAATGGCAGAGTGTCTTAGATCACCATAAAGACATGATCGTGGAA
 GAATGTGGGTGCCTCTGATGACATCCTGGAGGGAGACTGGATTTGCCTGCACTCTGGAAG
 GCTGGGAAACTCTGGAAGACATGATAACCATCTAATCCAGTAAGGAGAAACAGAGAGGG
 GCAAAGTTGCTCTGCCACCAAGTGAAGAGGAGGGGCTGCCACTCTGTAAATGAAGG
 GCTCAGTGGAGTCTGGCCAAGCACAGAGGCTGCTGT

Restriction Sites: Please inquire
ACCN: NM_018055



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Insert Size:	1300 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
OTI Annotation:	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
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.
RefSeq:	NM_018055.3 , NP_060525.2
RefSeq Size:	1744 bp
RefSeq ORF:	1044 bp
Locus ID:	4838
UniProt ID:	Q96S42
Cytogenetics:	10q22.1
Protein Families:	Cancer stem cells, Druggable Genome, Embryonic stem cells, ES Cell Differentiation/IPS, Induced pluripotent stem cells, Secreted Protein, Stem cell relevant signaling - TGFb/BMP signaling pathway
Protein Pathways:	TGF-beta signaling pathway

Gene Summary:

This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate the mature protein, which regulates early embryonic development. This protein is required for maintenance of human embryonic stem cell pluripotency and may play a role in human placental development. Mutations in this gene are associated with heterotaxy, a condition characterized by random orientation of visceral organs with respect to the left-right axis. [provided by RefSeq, Aug 2016]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no single transcript was available for the full length of the gene. The extent of this transcript is supported by transcript alignments.