

Product datasheet for **SC306757**

NSD1 (NM_172349) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: NSD1 (NM_172349) Human Untagged Clone
Tag: Tag Free
Symbol: NSD1
Synonyms: ARA267; KMT3B; SOTOS; SOTOS1; STO
Mammalian Cell Selection: None
Vector: pCMV6-XL4
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_172349 edited
 ATGCCCTGAAGACAAGGACAGCCCTTTTCGGATGATCCAGATTCCAGTACCAGTACATTA
 GGAAACATGCTAGAATTACCTGGAACCTCATCATCTACTTCACAGGAATTGCCATTT
 TGTCAACCTAAGAAAAAGTCTACGCCACTGAAGTATGAAGTTGGAGATCTCATCTGGGCA
 AAATTC AAGAGACGCCCATGGTGGCCCTGCAGGATTTGTTCTGATCCGTTGATTAACACA
 CATTCAAAAATGAAAGTTTCCAACCGGAGGCCCTATCGGCAGTACTACGTGGAGGCTTTT
 GGAGATCCTTCTGAGAGAGCCTGGTGGCTGAAAAAGCAATCGTCATGTTTGAAGCAGAG
 CATCAATTCGAAGAGCTACCTGTCCTTAGGAGAAGAGGGAAACAGAAAGAAAAAGGATAT
 AGGCATAAGGTTCTCAGAAAAATTTGAGTAAATGGGAAGCCAGTGTGGACTTGCAGAA
 CAGTATGATGTTCCCAAGGGTCAAAGAACCGAAAAATGTATTCTGGTTCAATCAAGTTG
 GACAGTGAAGAAGATATGCCATTTGAAGACTGCACAAATGATCCTGAGTCAGAACATGAC
 CTGTTGCTTAATGGCTGTTTGAATCACTGGCTTTTGATTCTGAACATTCTGCAGATGAG
 AAGGAAAAGCCTTGCCTAAATCTCGAGCCAGAAAGAGCTCTGATAATCAAAAAGGACT
 AGTGTGAAAAAGGGCCACATACAATTTGAAGCACATAAAGATGAACGGAGGGGAAAGATT
 CCAGAGAACCTTGGCCTAAACTTTATCTCTGGGATATATCTGATACGCAGGCCTCTAAT
 GAACCTTCCAGGATAGCAAAATAGCCTCACAGGGTCCAACACTGCCCCAGGAAGTTTTCTG
 TTTTCTTCTGTGAAAAAACACTGCAAAGAAAGAATTTGAGACTTCAAATGGTGACTCT
 TTATTGGGCTTGCTGAGGGTGCCTTTGATCTCAAAGTGTCTCGAGAGAAGAATAAACC
 CAACGAGCCTGGTGTGGTTCAAAGTGAAGCTCTGCTATATTGGAGCAGGTGATGAG
 GAAAAGCGAAGTATTCCATTAGTATCTGTACCACTTCTGATGATGGAAGCAGTGACCTG
 GATCCCATAGAACACAGCTCAGAGTCTGATAACAGTGTCTTGAATTCAGATGCTTTT
 GATAGAACAGAGAACATGTTATCTATGCAGAAAAATGAAAAGATAAAGTATTCTAGGTTT
 GCTGCCACAAACACTAGGGTAAAAGCAAAACAGAAGCCTCTCATTAGTAACCTCACATACA
 GACCACTTAATGGGTTGTAAGAGTGCAGAGCCTGGAACCGAGACGTCTCAGGTTAAT
 CTCTCTGATCTGAAGGCATCTACTTTGTTCAAAACCCAGTCAGATTTTACAAATGAT
 GCTCTCTCTCAAAATTCACCTGTCATCAAGCATATCCAGTGAAGACTCGTTAATAAAG
 GGTGGGCAGCAATCAAGCTCTATTACATTCGAAAAGCAACAGCCCAAGTTCGGAAGT



[View online »](#)

ATAAAGTGCAAACACAAAGAAAATCCAGTTATGGCAGAACCCCCAGTTATAAATGAGGAG
 TGCAGTTTGAAATGCTGCTCTTCTGATACCAAAGGCTCTCCTTTGGCCAGCATTCTAAA
 AGTGGGAAAGTGGATGGTCTAAACTACTGAACAATATGCATGAGAAAACCAGGGATTCA
 AGTGACATAGAAAACAGCAGTGGTAAACATGTTTTATCCGAGTTGAAAGAACTCTTTAC
 AGATCCTTAGGTGAGGATGTCAGTGACTCTGGAACATCAAAGCCATCAAACCATTACTT
 TTCTCTTCTGCTTCTAGTCAGAATCACATACCTATTGAACCAGACTACAAATTCAGTACA
 TTGCTAATGATGTTGAAAGATATGCATGATAGTAAGACGAAGGAGCAGCGGTTGATGACT
 GCTCAAAACCTGGTCTCTTACCGGAGTCCTGGTGGTGGGACTGTTCTACTAATAGTCCT
 GTAGGAGTCTCTAAGGTTTTGGTTTTCAGGAGGCTCCACACACAATTCAGAGAAAAAGGGA
 GATGGCACTCAGAACTCCGCCAATCCTAGCCCTAGTGGGGTGACTCTGCATTATCTGGC
 GAGTTGTCTGCTTCCCTACCTGGCTTACTGTCCGACAAGAGAGACCTCCCTGCTTCTGGT
 AAAAGTCGTTCACTGTGTTACTAGGCGCACTGTGGACGATCAAAGCCTTCATCCAAA
 TTGCGAGATGCTTTTTACGCCAAATGGTAAAGAACACAGTGAACCGTAAAGCCTTAAAG
 ACCGAGCGCAAAAGAAAACCTGAATCAGCTTCCAAGTGTGACTCTTGATGCTGTACTGCAG
 GGAGACCGAGAACGTGGAGGTTCAATTGAGAGGTGGGCAGAAAGATCCTAGTAAAGAGGAT
 CCCCTTACAGATAATGGGCCACTTAAACAAGTGAAGATGGTGACCATTTTTCTGATGTGCAT
 TTCGATAGCAAGGTTAAGCAATCTGATCCTGGTAAAATTTCTGAAAAAGGACTCTCTTTT
 GAAAACGGAAAAGGCCAGAGCTGGACTCTGTAATGAACAGTGAAGATGATGAACTCAAT
 GGTGTAATCAAGTGGTCCCTAAAAGCGGTGGCAGCGTTTAAACCAAAGGCGCACTAAA
 CCTCGTAAGCGCATGAACAGATTTAAAGAGAAAAGAAAACCTCTGAGTGTGCCTTTAGGGTC
 TTACTTCTAGTGACCTGTGCAGGAGGGGCGGGATGAGTTTCCAGAGCATAGAACTCCT
 TCAGAACGCATCTTGAGAACCACTGACAGAGCAAAATCATGCTGACTGCTTAGATTCA
 GCTGGGCACGGTTAAATGTTTTGTGATAAATCCAGTGCCAGCATTGGTGACATGGAAAAG
 GAGCCAGGAATCCCAGTTTGACACCACAGGCTGAGCTCCTGAACCAGCTGTGCGGTCA
 GAGAAGAAAACGCCTTAGGAAGCCAAGCAAGTGGCTTTTGGAAATACAGAGAATATGAT
 CAGATATTTGCTCCTAAGAAAAACAAAAGAAGGTACAGGAGCAGGTGCACAAGGTAAGT
 TCCCGCTGTGAAGAGGAAAGCCTTCTAGCCCGAGGTGATCTAGTGTGCAACAAGCAG
 GTGGACGAGAATTCTTTGATTTCAACCAAGAAGAGCCTCCAGTTCTTGAAGGGAGGCT
 CCGTTTTTGGAGGGCCCTTGGCTCAGTCAGAACTTGGAGGTGGACATGCTGAGTTGCCG
 CAGCTGACCTTGTCTGTGCTGTGGCTCCGGAAGTCTCTCCACGGCCTGCCCTTGTAGTCT
 GAGGAATTGCTAGTTAAAACGCCAGGAAATTTATGAAAGTAAACGTCAAAGAAAACCAACT
 AAGAAAACCTTCTGAATCCAATGATTTAGACCCTGGATTTATGCCCAAGAAGGGGGACCTT
 GGCTTTCTAAAAGTGCTATGAAGCTGGTACCTGGAGAATGGCATAACTGAATCTTGT
 GCCACATCTTATTCAAAGATTTTGGTGGAGGCACTACCAAGATATTTGACAAGCCAAGG
 AAGCGAAAACGACAGAGGCATGCTGCAGCCAAGATGCAGTGTAAAAAAGTAAAAATGAT
 GACTCGTCAAAAGAGATTCCAGGCTCAGAGGGAGAATAATGCCTCACAGGACGGCCACA
 AGCCCCAAGGAGACTGTTGAGGAAGGTGTAAGAACCGATCCCGGGATGCCTGCCTCTAAA
 AAAATGCAGGGTGAACCGGTGGAGGAGCTGACTCAAGGAGAATGTCTGTCAGAATTGT
 GAAAAATTGGGTGAGCTGCTGTTATGTGAGGCTCAGTGTGTTGGGCTTTCCACCTGGAG
 TGCTTGGATTGACTGAGATGCCAAGAGGAAAATTTATCTGCAATGAATGTCGCACAGGA
 ATCCATACCTGTTTTGTATGTAAGCAGAGTGGGGAAGATGTTAAAAGGTGCCTTCTACCC
 TTGTGTGGAAGTTTTACCATGAAGAGTGTGTCCAGAAGTACCCACCACTGTTATGCAG
 AACAAGGGCTTCCGGTGTCCCTCCACATCTGTATAACCTGTCATGCTGCTAATCCAGCC
 AATGTTTCTGCATCTAAAGTCCGTTGATGCGCTGTGCTCCGCTGCTGTGGCATAACCAC
 GCCAATGACTTTTGCCTGGCTGCTGGTCAAAGATCCTTGCATCTAATAGTATCATCTGC
 CCTAATCACTTTACCCCTAGGCGGGCTGCCGAAATCATGAGCATGTTAATGTTAGCTGG
 TGCTTTGTGTGCTCAGAAGGAGGACGCCTTCTGTGCTGTGATTCTTGCCCTGCTGCTTTT
 CATCGTGAATGCCTGAACATTGATATCCCTGAAGGAAACTGGTATTGCAATGACTGTAAA
 GCAGGCAAAAAGCCACACTACAGGGAGATTGTCTGGGTAAAAGTTGGACGATACAGGTGG
 TGGCCAGCTGAGATCTGCCATCCTCGAGCTGTTCTTCCAACATTGATAAGATGAGACAT
 GATGTGGGAGAGTTCCAGTCTCTTTTTGGATCTAATGACTATTTGTGGACTCACCAG
 GCCCGAGTCTTCCCTTACATGGAGGGTACGCTGAGCAGCAAGGATAAGATGGGCAAGGA

GTGGATGGGACATATAAAAAAGCTCTTCAGGAAGCTGCAGCAAGGTTTGAGGAATTAAG
 GCCCAAAAAGAGCTAAGACAGCTGCAGGAAGACCGAAAGAATGACAAGAAGCCACCCT
 TATAAACATATAAAGGTAACCGTCCTATTGGCAGGGTACAGATCTTCACTGCAGACTTA
 TCTGAAATACCCCGTTGCAACTGTAAGCTACTGATGAGAACCCCTGTGGGATAGACTCT
 GAATGCATCAACCGCATGCTGCTCTATGAGTGCCACCCACAGTGTGCTGCCGGAGGG
 CGCTGTCAAAACCAGTGTCTTTCCAAGCGCCAATATCCAGAGGTTGAAATTTCCGCACA
 TTACAGCGGGGTTGGGGTCTACGGACAAAAACAGATATTAAGGAGGTTGAAATTTGTGAAT
 GAGTATGTGGGTGAGCTTATAGATGAAGAAGAATGCAGAGCTCGAATTCGCTATGCTCAA
 GAACATGATATCACTAATTTCTATATGCTCACCTAGACAAAGACCGAATCATTGATGCT
 GGTCCCAAAGGAACTATGCTCGGTTTCAATCATTGCTGCCAGCCAACTGTGAAACA
 CAGAAGTGGTCTGTAATGGAGATACCCGTGTAGGCTTTTTGCACTAAGTGACATTAA
 GCAGGCACTGAACCTTCACTACAACCTAGAATGTCTTGGGAATGGAAAGACTGTT
 TGCAAATGTGGAGCCCGAACTGCAGTGGCTTCTGGGTGTAAGGCCAAAGAATCAACCC
 ATTGCCACGGAAGAAAAGTCAAAGAAATCAAGAAGAAGCAACAGGGAAGCGCAGGACC
 CAGGGTGAATCAAAAGGAGCGAGAAGATGAGTGTGTTTGTGGGGATGCTGCCAG
 CTGCTCTCTGCAAGAAACCAGGCTGCCAAAAGTTTACCACGCAGACTGTCTAATCTG
 ACCAAGCGACCAGCAGGGAAATGGGAATGTCCGTGGCATCAGTGTGACATCTGCGGGAAG
 GAAGCAGCCTCCTTCTGTGAGATGTGCCCCAGCTCCTTTTGAAGCAGCATCGAGAAGGG
 ATGCTTTTCAATTTCCAACTGGATGGGCGTCTGTCTTGTACTGAGCATGACCCCTGTGG
 CCCAATCCTCTGGAACTGGGGAGATCCGTGAGTATGTGCCTCCCCAGTACCCGTGCT
 CCAGGGCCAAGCACTCACCTGGCAGAGCAATCAACAGGAATGGTGTCTCAGGCACCCAAA
 ATGTGAGATAAACCTCCTGTGACACCAACCAGATGCTGTGCTCTCAAAAAAGCTCTG
 GCAGGACTTGTGAGAGCCACTGCTACCTGAAAGACTTTGAGAGAAGTACTGACTCCAGG
 CCCCAGCCTTTAGATAAGGTGAGAGACCTCGCTGGGTGAGGACCAATCCCAATCCTTG
 GTTCCAGCCAGAGGCCACTGGACAGGCCACCAGCAGTGGCAGGACCAAGACCCAGCTA
 AGCGACAAACCCTCTCCAGTGACCAGCCAAAGCTCCTCACCTCAGTCAAGTCCCAACCA
 CTGGAAAGACCTCTGGGGACGGCTGACCCAAGGCTGGATAAATCCATAGGTGCTGCCAGC
 CCAAGGCCCCAGTCACTGGAGAAAACCTCAGTTCCCACTGGCCTGAGACTTCCGCCGCCA
 GACAGACTGCTCATTACTAGCAGTCCCAAACCCAGACTTCAAGCAGGCTACTGACAAA
 CCCCATGCCTCTTTGTCCAGAGACTCCCACCTCCTGAGAAAGTACTATCAGCTGTGGTC
 CAGACCCTTGTAGCTAAAGAAAAAGCACTGAGGCTGTGGACCAGAATACTCAGTCAAAA
 AATAGAGCTGCTTTGGTATGGATCTCATAGACCTAACTCCTCGCCAGAAGGAGCGGGCA
 GCTTACCTCATCAGGTACACCACAGGCTGATGAGAAGATGCCAGTGTGGAGTCAAGT
 TCATGGCTGCCAGCAAAGGCTCTGGGGCATATGCCGAGAGCTGTTGAGAAAGGCTGTGTG
 TCAGATCCTCTTTCAGACATCTGGGAAAGCAGCAGCCCTTTCAGAGGACCCCTGGCAAGCT
 GTTAAATCACTCACCCAGGCCAGACTTCTTTCTCAGCCTCCTGCCAAGGCCTTTTTATAT
 GAGCCAAACTCAGGCTCAGGAAGAGCTTCTGCAGGGGCTGAGCAGACCCAGGGCT
 CTTAGCCAATCCCAGGCTGGTGAAGCAGGCGAAGCAGATGGTGGAGGCCAGCAACTA
 CCTGCATTGCCCAAGAGTGGGCAATCTTTTGTGCTCTCGGGAAGGCCCCAGCCTCC
 CTCCCCACTGAAGAAAAGAGTTGGTAACCACAGAGCAAAGTCCCTGGGCCCTGGGAAAA
 GCCTCATCACGGCAGGGCTCTGGCCATAGTGGCTGGACAGACTGGCACAGTCTTGC
 TGGTCTGCTGGGAGCACACAGACATTGGCACAGACTTGCTGGTCTCTTGGAGAGGGCAA
 GACCCCAAACCAGAGCAAATACACTTCCAGCTCTTAACCAGGCTCCTTCCAGTCAACAG
 TGTGCAGAATCAGAACAGAAGTAGTACCAATCAATGTCACATGAACAAACAAGCTGCCCC
 CAGGGTACCATTTGGGGAGGGGAAATCTTTTCTTTTCCCCCTTAAAAAAAACACAT
 CTGCCCCGAACACTTTCCACTGTTATTCTTTCTTCTTCCATATCCCAACTCAGAATCTTG
 TGACATTAGCCAGTGGGGCTTATGGTTGTGTAACCATGTATGAAAATCCAGTGGGCC
 CAACCAAGGAGACAGACAGACTTGGGTCTTTTCCCCAACTTTTCCACATGGTCATCGT
 GAAATAAAAAGTCCACTCTGGAGTCAAAAAAAGAAAAAAAAAAAAAAAAA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_172349 unedited
 NNCGGCCGCGNNAATTCATGCCCTGNAANACAAGACAGCCCTTTTCGGATGATCCAGATT
 CCAGTACCAGTACATTAGGAAACATGCTAGAATTACCTGGAACCTCATCATCTACTT
 CACAGGAATTGCCATTTTGTCAACCTAAGAAAAAGTCTACGCCACTGAAGTATGAAGTTG
 GAGATCTCATCTGGGCAAAATTCAGAGACGCCCATGGTGGCCCTGCAGGATTTGTTCTG
 ATCCGTTGATTAACACACATTCAAAAATGAAAGTTTCCAACCGGAGGCCCTATCGGCAGT
 ACTACGTGGAGGCTTTTGGAGATCCTTCTGAGAGAGCCTGGGTGGCTGGAAAAGCAATCG
 TCATGTTTGAAGGCAGACATCAATTCGAAGAGCTACCTGTCCTTAGGAGAAGAGGGAAAC
 AGAAAGAAAAAGGATATAGGCATAAGGTTCTCAGAAAATTTTGAGTAAATGGGAAGCCA
 GTGTTGGACTTGACAGACAGTATGATGTTCCCAAGGGGTCAAAGAACCGAANATGTATTC
 CTGGTTCAATCAAGTTGGACAGTGAAGAAGATAGCCATTTGAAGACTGCACAAATGATC
 CTGAGTCAGAACATGACCTGTTGCTTAATGGCTGTTTGAATCACTGGCTTTTGATTCTG
 AACATTCTGCAGATGAGAAGGAAAAGCCTTGCGCNTAATCTCGAGCCAGAAAGAGCTCTG
 ATNATCCAAAAAGGACTAGTGTGAAAAAGGGCACATACNATTTGAAGCACATAAAGATGA
 ACGGGAGGGGAAAGATTCAGAGAACNTNGNCCTAACTTTATCTCTGGGGAATATCTG
 ATACGCAG

3' Read Nucleotide Sequence:

>Forward primer walk for NM_172349 unedited
 ATNCAAAATAAGACTGCTTTGGTGAAGGAANCTCATANACCTAACTCCTCGCCAGAGGAG
 CGGGCAGCTTACCTCATCAGGTCACACCACAGGCTGATGAGAAGATGCCAGTGTGGAG
 TCAAGTTCATGGCCTGCCAGCAAAGGTCTGGGGCATATGCCGAGAGCTGTTGAGAAAGGC
 TGTGTGCAGATCCTCTTCAGACATCTGGGAAAGCAGCAGCCCTTCAGAGGACCCCTGG
 CAAGCTGTTAAATCACTACCCAGGCCAGACTTCTTTCTCAGCCTCCTGCCAAGGCCTTT
 TTATATGAGCCAACAACCTCAGGCCTCAGGAAGAGCTTCTGCAGGGGCTGAGCAGACCCCA
 GGGCCTCTTAGCCAATCCCCGGGCTGGTGAAGCAGGCGAAGCAGATGGTCGGAGGCCAG
 CAACTACCTGCACCTGCCGCAAGAGTGGGCAATCTTTTAGGTCTCTCGGGAAGGCCCA
 GCCTCCCTCCCCACTGAAGAAAAGAAGTTGGTAACCACAGAGCAAAGTCCCTGGGCCCTG
 GGAAAAGCCTCATCAGGGCAGGGCTCTGGCCATAGTGGCTGGACAGACTGGCACAG
 TCTTGCTGGTCTGCTGGGAGCACACAGACATTGGCACAGACTTGGTCTCTTGGGAAGA
 AGGCAAGACCCCAACCAGAGCANAATACACTTCCAGCTTTAACCAGGCTCCTTCCAGT
 CACAAGTGTGCAGAATCAGAACAGAGGTAGTACCAATCAATGTCACATGAACAAACAAGC
 TGCCCCCAGGGTACCATTTTGGGAGGGGAAATCTTTTCTTTCTTCCCCCTTAAAAAAA
 ACACATCTGCCCCAACACTTTCCAC

Restriction Sites:

Please inquire

ACCN:

NM_172349

Insert Size:

7600 bp

OTI Disclaimer: 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.

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: 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:

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_172349.1](#), [NP_758859.1](#)

RefSeq Size: 7693 bp

RefSeq ORF: 7284 bp

Locus ID: 64324

UniProt ID: [Q96L73](#)

Cytogenetics: 5q35.3

Protein Families: Druggable Genome

Protein Pathways: Lysine degradation

Gene Summary:

This gene encodes a protein containing a SET domain, 2 LXXLL motifs, 3 nuclear translocation signals (NLSs), 4 plant homeodomain (PHD) finger regions, and a proline-rich region. The encoded protein enhances androgen receptor (AR) transactivation, and this enhancement can be increased further in the presence of other androgen receptor associated coregulators. This protein may act as a nucleus-localized, basic transcriptional factor and also as a bifunctional transcriptional regulator. Mutations of this gene have been associated with Sotos syndrome and Weaver syndrome. One version of childhood acute myeloid leukemia is the result of a cryptic translocation with the breakpoints occurring within nuclear receptor-binding Su-var, enhancer of zeste, and trithorax domain protein 1 on chromosome 5 and nucleoporin, 98-kd on chromosome 11. Multiple transcript variants encoding distinct isoforms have been identified for this gene. [provided by RefSeq, Sep 2018]

Transcript Variant: This variant (1), also known as ARA267-alpha, differs in the 5' UTR and coding region, compared to variant 2. It encodes a shorter isoform (a), that has a distinct N-terminus compared to isoform b. Variants 1 and 3 both encode the same isoform (a).
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 and orthologous data.