

## Product datasheet for RC212815

### NANOS2 (NM\_001029861) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** NANOS2 (NM\_001029861) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** NANOS2  
**Synonyms:** NOS2; ZC2HC12B  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC212815 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCAGCTGCCACCCTTCGACATGTGGAAGGACTACTTCAACCTGAGCCAGGTGGTGTGGGCGCTGATCG  
CAAGTCGGGGTCAAAGGCTGGAGACCCAAGAGATTGAGGAGCCAAGTCCCAGGCTCCGCTGGGGCAGGA  
TCAGGGGCTGGGGCGCCAGGGGCAACGGGGCTGGGGACCTGTGCAACTTCTGCAAGCACAAACGGG  
GAGTCCCACCACGTCTACTCCTCACACCAGCTGAAGACACCGGATGGCGTGGTGGTGTGCCATCTGA  
GGCACTACGTGTGTCCCCTGTGCGGGGCCACCGGTGACCAGGCCATACGCTCAAGTACTGCCCGTTAA  
CGGTGGCCAGCAGTCCCTACCGCCGACGGGGCGCAACTCGGCCGGACGCAGGGTCAAGCGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC212815 protein sequence  
Red=Cloning site Green=Tags(s)

MQLPPFDMWKDYFNL SQVWVAL IASRGQRLETQEIEEPSGPPLGQDQGLGAPGANGGLGTL CNFCKHNG  
ESRHVYSSHQLKTPDGVVCPILRHYVCPVCGATGDQAHTLKYCPLNGGQQSLYRRSGRNSAGRRVKR

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6709\\_d03.zip](https://cdn.origene.com/chromatograms/mk6709_d03.zip)

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**


**ACCN:** NM\_001029861

**ORF Size:** 414 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\\_001029861.3](#)

**RefSeq Size:** 1577 bp

**RefSeq ORF:** 417 bp

**Locus ID:** 339345

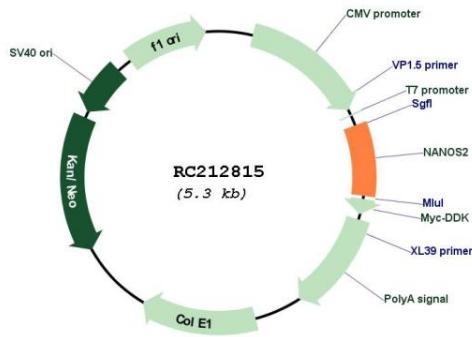
**UniProt ID:** [P60321](#)

**Cytogenetics:** 19q13.32

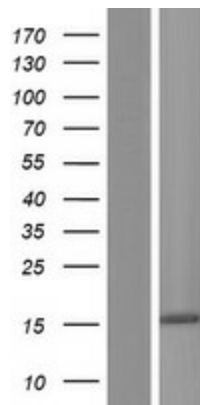
**MW:** 15.1 kDa

**Gene Summary:** Plays a key role in the sexual differentiation of germ cells by promoting the male fate but suppressing the female fate. Represses the female fate pathways by suppressing meiosis, which in turn results in the promotion of the male fate. Maintains the suppression of meiosis by preventing STRA8 expression, which is required for premeiotic DNA replication, after CYP26B1 is decreased. Regulates the localization of the CCR4-NOT deadenylation complex to P-bodies and plays a role in recruiting the complex to trigger the degradation of mRNAs involved in meiosis. Required for the maintenance of the spermatogonial stem cell population. Not essential for the assembly of P-bodies but is required for the maintenance of their normal state (By similarity).[UniProtKB/Swiss-Prot Function]

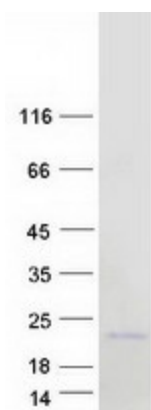
**Product images:**



Circular map for RC212815



Western blot validation of overexpression lysate (Cat# [LY422478]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212815 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NANOS2 protein (Cat# [TP312815]). The protein was produced from HEK293T cells transfected with NANOS2 cDNA clone (Cat# RC212815) using MegaTran 2.0 (Cat# [TT210002]).