

## Product datasheet for **SC127211**

### ZNF281 (NM\_012482) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ZNF281 (NM_012482) Human Untagged Clone
Tag:	Tag Free
Symbol:	ZNF281
Synonyms:	GZP1; ZBP-99; ZBP99; ZNP-99
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC127211 sequence for NM\_012482 edited (data generated by NextGen Sequencing)

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ATGAAAATCGGCAGTGGGTTCTGAGTGGCGGCGGAGGTACCGGCAGTAGCGGTGGTAGC
GGCTCCGGCGGCGGTGGTAGTGGCGGCGGCGGCGGCGGCGGCAGCAGCGGCAGGAGGGCA
GAGATGGAACCCACCTTTCCCAAGGATGTTTATGTTCAACCACCGTCTCCCCCGGTC
ACCAGCTTCACCCGGCCGCGGGGTGCGCCGCCCTCCCCGCAATGCGTGTATCCTCC
TCTACCTCCGACGCCCGCGCGCTGAGCCCCCCTCCGCCAGCCCCGGACATGACTTTC
AAGAAGGAGCCGCGGCGTCAGCCGCGGCTTCCCTCGCAGAGGACCTCCTGGGGTTC
TTGCAGTCTTTGGTTAGCATCAAACAGGAGAAACCCGCGATCCTGAGGAGCAGCAGTCC
CACCACCACCATCACCACCACCTATGGGGGGTGTTCGCTGGAGCTGAAGAGAGGTCT
CCAGGCC TAGGAGCGGTGAAGGGGGAGTACGGCGTCATCCAGGACCTCAGTATTCTC
CACCAGCATGTCCAGCAGCAACCAGCCAGCACCACCGTACGTATTACTCAGCAGCAGT
AGCAGGACTGATGACCACCATGGCACTGAGGAGCCAAAGCAGGACACTAATGTCAAAAAG
GCAAAAAGGCCAAAGCCAGAATCTCAGGAATCAAAGCCAAGAGGAAGCCAAGTGCATCT
TCCAAACCTTCTTTGGTTGGAGATGGAGAAGGTGCCATCTCTCCCAAGTCAGAAACCT
CATATCTGTGATCACTGTAGTGCTTTCCGAAGCTCCTATCACCTGCGGAGACATGTC
CTCATTACATACAGGAGAAAGACCTTCCAGTGCAGCCAGTGTAGTATGGGTTTCATTGAG
AAATACCTACTACAGAGACATGAGAAAATTCATAGTAGAGAGAAGCCATTTGGATGTGAT
CAGTGCAGCATGAAGTTTATTCAGAAAGTACCATATGGAGAGACACAAGAGGACACATAGT
GGAGAAAAGCCATATAAGTGTGACACTTGCCAACAGTATTTTTCAAGGACTGATAGATTG
TTGAAGCACAGGCGCACATGTGGTGAAGTCATAGTTAAAGGAGCCACTAGTGCAGAACCT
GGGTCACTCAAACCATACCAATATGGGTAATCTGGCTGTGTGTCTCAGGGAAATACAAGT
TCTTCAAGGAGAAAAACAAAGTCAAAAAGCATAGCTATTGAAAAAAGGAACAGAAAGCC
GGTAAAACAAATGAATCGCAAATTTCAAATAATATAAACATGCAGAGTTACTCAGTAGAA
ATGCCTACCGTGTCTCCAGTGGAGGCATAATTGGCACTGGAATAGATGAACTGCAGAAG
AGGGTGCCAAAATTGATCTTTAAGAAAGGAAGCAGAAAGAATACAGATAAAAACTACCTT
AACTTTGTGTCACCATTACCAGACATAGTAGGACAGAAATCCTTGTCTGGAAAACCAAGT
GGCTCACTTGGCATAGTATCAAATAATAGTGTGGAGACCATTGGTCTTCTCAAAGTACA
AGTGGCAAACAAGGTGAGATAAGTAGTAATTATGATGATGCCATGCAGTTTTCAAAGAAA
AGAAGATATTTACCAACTGCCAGCAGCAACAGTGCCTTTTCTATAAACGTAGGACACATG
GTCTCCCAACAGTCTGTCACTCAGTCTGCAGGTGTGAGTTTTGGACAATGAGGCACCA
TTGTCACTTATTGACTCCTCAGCTCTAAATGCTGAAATTAATCTTGTGATGACAAGTCT
GGAATTCCTGATGAGTTTTACAAAGTATTTGGATCAATACTCCAACAAATCAGAAAGC
CAGAAAGAGGATCCTTTCAATATTGCAGAACACGAGTGGATTTACACACCTCAGGAGAA
CACTCAGAAATGGTTCAAGAAGAAAATTTGAGCCAGGCACCCAAACACCTTCAAATGAT
AAAGCAAGTATGTTGCAAGAATACTCCAATACCTCCAACAGGCTTTTGAAAAATCCACT
AATGCAAGTTTTACTCTTGGACACGGTTTTCCAATTTGTGAGTTTTGTCTTACCTCTCCAC
AACCACACTTTGTTTCCAGAAAAACAAATATACTACTACGTCTCCTTTGGAGTGTGGTTTC
GGCCAATCTGTTACCTCAGTGTGGCATCTTCATTGCCAAAGCCCTCTTTTGGGATGTTG
TTTGGATCTCAGCCAGGCTTTATTTGTCTGCTTTGGATGCTACACATCAGCAGTTGACA
CCTTCCCAGGAGCTGGATGATCTGATAGATTCTCAGAAGAACTTAGAGACTTCATCAGCC
TTCCAGTCTCATCTCAGAAATTGACTAGCCAGAAGGAACAGAAAAACTTAGAGTCTTCA
ACAGGCTTTAGATTCCATCTCAGGAGTTAGCTAGCCAGATAGATCCTCAGAAAGACATA
GAGCCTAGAACAACGTATCAGATTGAGAATTTGCACAAGCGTTTGGTTCTCAGTTTAAG
TCGGGCAGCAGGGTGCCAATGACCTTTTACTAACTCTAATGGAGAAGTGGACCATAGA
GTAAGGACTTCAGTGTGAGATTTCTCAGGTATACAAATATGATGTCTGATGTAAGTGAG
CCATGTAGTACAAGAGTAAAGACACCCACCAGCCAGGTTACAGGTAA

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Clone variation with respect to NM\_012482.3  
1278 a=>g

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_012482 unedited  
 ACTATAGGGCGGCGCGAATTCGGCACGAGGGTGGAGAGGACGGCGTTATTTTTATTAAC  
 TGGAGGCGACGGCGGCTGCGGCGGCGGGACCCCCAGGCCCTCCTCCGGGGTATGAAAA  
 TCGGCAGTGGGTTCTGAGTGGCGGGGAGGTACCGGCAGTAGCGGTGGTAGCGGCTCCG  
 GCGGGGTGGTAGTGGCGGGCGGGCGGGCGGCAGCAGCGGCAGGAGGGCAGAGATGG  
 AACCCACCTTTCCCCAGGGTATGGTTATGTTCAACCACCGTCTTCCCCGGTCACCAGCT  
 TCACCCCGGGCGGGGTGCGCCGCCCTCCCCCGCAATGCGTGTATCCTCCTTACC  
 TCCGCAGCCCCGGCCGCTGAGCCCCCCCTCCGCCAGCCCCGGACATGACTTTCAAGAAG  
 GAGCCGGCGGCGTCAGCCGCGGCCCTCCCTCGCAGAGGACCTCCTGGGGTTCTTGCAG  
 TCTTTGGTTAGCATCAAACAGGAGAAAACCCGCGGATCCTGAGGAGCAGCAGTCCCACCAC  
 CACCATCACCACCACCTATGGGGGGCTGTTGCTGGAGCTGAAGAGAGGGTCTCCAGC  
 CTANGANNCGTGAAGGGGGGAGTACGGCGTCAATCCAGACCTCAGTATTCTCCACCAG  
 CATGTCCAGCAGCAACCAGCCAGCACCACCCGTGACGTATTACTCAGCAGCAGTAGCAG  
 GACTGATGACCACCATGGCCCTGNAGAGCCAAGCAGACACTANNTGTCAAAGGCAAAA  
 AGCCCCAAGCCAGATCTCAGNAAATCAAGCCAGAGGAAGCCAGTGCATCTCAACCTTC  
 TTNGNTGAGATGGAGAAGTGCCATCTCTCCAGTCAGAACCTATACTGGGACCCTGNANG  
 CTGCTTTCGAGCTCTATACTGCGAGACTGTCTATTCTCAGAGAAGACTTCAGGCAGCGTG  
 TAAATTGGTTCTCAAATACTCTACGAGCTGANAATCT

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_012482 unedited  
 TCCGCGGCGCAATCTANNATCGAGTTTTTTTTTTTTTTTTTTTTTGGGTTTAAACATTTGG  
 GCTATTCCTGACGATCTATACATGTAATTTGATTGCTAAACATTGTCACCTTTGAATGT  
 CAAACTATTTTTAATCTATTGATTTTGTAAAAATCATAATACAAACAGAGCTAGAATC  
 ACGCTAACAAAATAAACTAAATATGAAAAGTTGCATTGAAAGGGCATCACATTATTCTTA  
 ATAGGATCGTGTAGAAACATTCCAATGGCAGTGTCTCAAATAAAAACAAAATTACATTA  
 GAAGACCTCCAGCCTGGCCACTTTTGGGACCTTACCTGTAACCTCTGGCTGGTGGGTGTCT  
 TTACTCTGTACTACATGGCTCACTTACATCAGACATCATATTTGTATACCCTGAGAAAT  
 CTGACACTGAAGTCCTTACTCTATGGTCCACTTCTCCATTAGAGTTAGTGATAAAGGTCA  
 TTGGCACCTGCTGCCCCGACTTAACTGAGAACCAAACGCTTGTGCAAAGTTCTCAATCT  
 GATACGTTGTTCTAGGCTCTATGTCTTTCTGAGGATCTATCTGGCTAGCTAACTCCTGAG  
 ATGGAATCTGAAAGCCTGTTGAAGACTCTAAGTTTTTCTGTTCTTCTGGCTAGTCAATT  
 TCTGAGATGAGGACTGGAAGGCTGATGAAGTCTTAAGTTCTTCTGAGAATCTATCAGAT  
 CATCCAGCTCCTGGGAAGGTGTCAACTGCTGATGTGTAGCATCCAAAAGCAGACAATAAA  
 GACCTGGCTGAGNATCCAACACATCCCAAAGGGAGGCCTTGCCATGAAGATGGGCACACT  
 GAGGTTACAGATTGGNCGAAACCACACTCAAGGAGACGTANTGTATATTTGGTTTTCTG  
 GGAACAAATGTTGGTGTGGAAGTGAAACAA

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_012482

**Insert Size:**

3100 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](mailto: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](#)

**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\\_012482.3](#), [NP\\_036614.1](#)

**RefSeq Size:** 3535 bp

**RefSeq ORF:** 2688 bp

**Locus ID:** 23528

**UniProt ID:** [Q9Y2X9](#)

**Cytogenetics:** 1q32.1

**Domains:** zf-C2H2

**Protein Families:** ES Cell Differentiation/IPS, Stem cell - Pluripotency, Transcription Factors

**Gene Summary:**

Transcription repressor that plays a role in regulation of embryonic stem cells (ESCs) differentiation. Required for ESCs differentiation and acts by mediating autorepression of NANOG in ESCs: binds to the NANOG promoter and promotes association of NANOG protein to its own promoter and recruits the NuRD complex, which deacetylates histones. Not required for establishment and maintenance of ESCs (By similarity). Represses the transcription of a number of genes including GAST, ODC1 and VIM. Binds to the G-rich box in the enhancer region of these genes.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the shorter transcript. Variants 1 and 2 encode the same protein (isoform 1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.