

Product datasheet for **RC209243**

ZNF281 (NM_012482) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ZNF281 (NM_012482) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ZNF281
Synonyms:	GZP1; ZBP-99; ZBP99; ZNP-99
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC209243 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAAAATCGGCAGTGGGTTCTGAGTGGCGGCGGAGGTACCGGCAGTAGCGGTGGTAGCGGCTCCGGCG
 GCGGTGGTAGTGGCGGCGCGGCGGCGGCAGCAGCGCAGGAGGGCAGAGATGGAACCCACCTTTCC
 CCAGGGTATGTTTATGTTCAACCACCGTCTTCCCCGGTCACCAGCTTACCCCGCCGGCGGGTTCGGCC
 GCCCTCCCCGCAATGCGTGTATCCTCCTACCTCCGAGCCCGGCGGCTGAGCCCCCTCCGC
 CAGCCCCGGACATGACTTTCAAGAAGGAGCCGGCGGCTCAGCCGCGGCTTCCCCTCGCAGAGGACCTC
 CTGGGGTTCTTGCAGTCTTTGGTTAGCATCAAACAGGAGAAACCCGCGGATCCTGAGGAGCAGCAGTCC
 CACCACCACCATCACCACCACCTATGGGGGGCTGTTGCTGGAGCTGAAGAGAGGTCTCCAGGCTAG
 GAGGCGGTGAAGGGGGAGTACGGCGTCATCCAGGACCTCAGTATTCTCCACCAGCATGTCAGCAGCA
 ACCAGCCAGCACCACCGTGACGTATTACTCAGCAGCAGTAGCAGGACTGATGACCACCATGGCACTGAG
 GAGCCAAAGCAGGACACTAATGTCAAAAAGGCCAAAAGGCCAAGCCAGAATCTCAGGGAATCAAAGCCA
 AGAGGAAGCCAAGTGCATCTTCCAAACCTTCTTTGGTTGGAGATGGAGAAGGTGCCATCCTCTCCCAAG
 TCAGAAACCTCATATCTGTGATCACTGTAGTGCTTTCCGAAGCTCCTATCACCTGCGGAGACATGTC
 CTCATTACACAGGAGAAAGACCTTTCCAGTGCAGCCAGTGTAGTATGGGTTTCATTAGAAAATACCTAC
 TACAGAGACATGAGAAAATTCATAGTAGAGAGAAGCCATTTGGATGTGATCAGTGCAGCATGAAGTTTAT
 TCAGAAGTACCATATGGAGAGACACAAGAGGACACATAGTGGAGAAAAGCCATAAAGTGTGACACTTGC
 CAACAGTATTTTCAAGGACTGATAGATTGTTGAAGCACAGGCGCACATGGTGAAGTCAATAGTTAAAG
 GAGCCACTAGTGCAGAACCTGGGTCAACAAACCAATACCAATATGGGTAATCTGGCTGTGTCTCAGGG
 AAATACAAGTTCTTCAAGGAGAAAAACAAGTCAAAAAGCATAGCTATTGAAAATAAGGAACAGAAAGACC
 GGTAAAACAATGAATCAAAATTTCAAATAATATAAACATGCAGAGTTACTCAGTAGAAATGCCTACCG
 TGTCTTCCAGTGGAGGCATAATTGGCACTGGAATAGATGAACTGCAGAAGAGGGTGCCAAAATTTGATCTT
 TAAGAAAGGAAGCAGAAAGAATACAGATAAAAACTACCTTAACCTTGTGTACCATTACCAGACATAGTA
 GGACAGAAATCCTTGTCTGAAAACCAAGTGGCTCACTTGGCATAGTATCAAATAATAGTGTGGAGACCA
 TTGGTCTTCTCAAAGTACAAGTGGCAACAAGGTCAGATAAGTAGTAATTATGATGATGCCATGCAGTT
 TTCAAAGAAAAGAAGATATTTACCAACTGCCAGCAGCAACAGTGCCTTTTCTATAAACGTAGGACACATG
 GTCTCCCAACAGTCTGTCACTCAGTCTGCAGGTGTCAGTGTGTTGGACAATGAGGCACCATTGTCACTTA
 TTGACTCCTCAGCTCTAAATGCTGAAATTAATCTTGTGATGACAAGTCTGGAATTCCTGATGAGGTTTT
 ACAAAGTATTTTGGATCAATACTCCAACAAATCAGAAAGCCAGAAAGAGGATCCTTTCAATATTGCAGAA
 CCACGAGTGGATTTACACACCTCAGGAGAACACTCAGAATTGGTTCAAGAAGAAAATTTGAGCCCAGGCA
 CCCAAACACCTTCAAATGATAAAGCAAGTATGTTGCAAGAATACTCCAAATACCTCCAACAGGCTTTTGA
 AAAATCCACTAATGCAAGTTTTACTCTTGGACACGTTTTCCAATTTGTGAGTTTGTCTTCCACTCTCCAC
 AACCACACTTTGTTTCCAGAAAAACAATAACACTACGTCCTTTGGAGTGTGGTTTCGGCCAATCTG
 TTACCTCAGTGTGCCATCTTCATTGCCAAAGCCTCCTTTGGGATGTTGTTGGATCTCAGCCAGGTCT
 TTATTTGTCTGCTTTGGATGCTACACATCAGCAGTTGACACCTTCCAGGAGCTGGATGATCTGATAGAT
 TCTCAGAAGAACTTAGAGACTTCATCAGCCTTCCAGTCCATCTCAGAAATTGACTAGCCAGAAGGAAC
 AGAAAACTTAGAGTCTTCAACAGGCTTTCAGATTCCATCTCAGGAGTTAGCTAGCCAGATAGATCTCA
 GAAAGACATAGAGCCTAGAACAACGTATCAGATTGAGAACTTTGCACAAGCGTTTGGTTCTCAGTTTAA
 TCGGGCAGCAGGGTGCCAATGACCTTTACTACTAATCTAATGGAGAAGTGGACCATAGAGTAAGGACTT
 CAGTGTGAGATTTCTCAGGGTATACAAATATGATGTCTGATGTAAGTGAAGTGGCCATGTAGTACAAGAGTAA
 GACACCCACCAGCCAGAGTTACAGG

ACGCGTACGCGGCGGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC209243 protein sequence
 Red=Cloning site Green=Tags(s)

```

MKIGSGFLSGGGGTGSSGGSGSGGGGGSGGGGGSSGRRRAEMEPTFPQGMVMFNHRLPPVTSFTRPAGSA
APPPQCVLSSSTSAAPEPPPPAPDMTFKKEPAASAAAFPSQRTSWGFLQSLVSIKQEKPADPEEQS
HHHHHHHHYGGFLFAGAERSPLGGGEGGSHGVIQDLSILHQHVQQPAQHHRDVLLSSSSRTDDHHGTE
EPKQDNTVKKAKRPKPESSQGIKAKRKPSASSKPSLVGDGEGAILSPSQKPHICDHCSAAFRSSYLRRHV
LIHTGERPFQCSQCSMGFIQKYLQRHEKIHRSREKPFQCDQCSMKFIQKYHMERHKRTHSGEKPYKCDTC
QQYFSRTDRLLKHRRTCGEVIIVKATSAPGSSNHTNMGNLAVLSQGNTSSRRRTKSKSIAIENKEQKT
GKTNESQISNNINMQSYSVEMPTVSSSGGIIGTGIDELQKRVPKLIFKKGSRKNTDKNYLNFVSPPLDIV
GQKSLSGKPSGLGIVSNNSVETIGLLQSTSGKQGQISSNYDDAMQFSKKRRYLPTASSNSAFSINVGHM
VSQQSVIQSAGSVLDNEAPLSLIDSSALNAEIKSCHDKSGIPDEVLSILDQYSNKSESQKEDPFNIAE
PRVDLHTSGEHSSELVQEENLSPGTQTPSNDKASMLQEYSKYLQAFEKSTNASFTLGHGFQFVSLSSPLH
NHTLFPEKQIYTTSPLECGFGQSVTSVLPSSLKPPFGMLFGSQPGLYLSALDATHQQLTPSQELDDLID
SQKNLETSAAFQSSQKLT SQEKQKNLESSTGFQIPSQELASQIDPQKDIEPRTTYQIENFAQAFGSQFK
SGSRVPMFTITNSNGEVDHRVRTSVSDFSGYTNMMSDVSEPCSTRVKTPTSQSYR
  
```

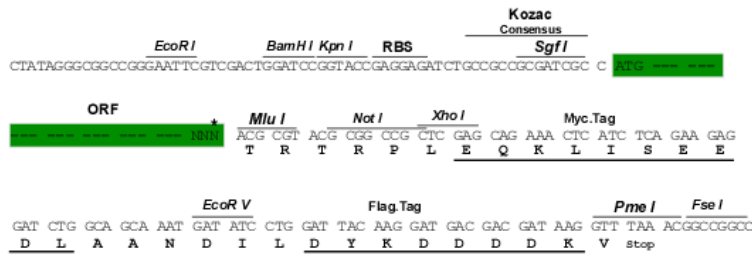
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6694_g12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



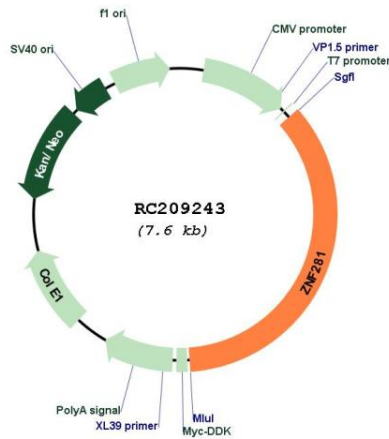
* The last codon before the Stop codon of the ORF

ACCN: NM_012482

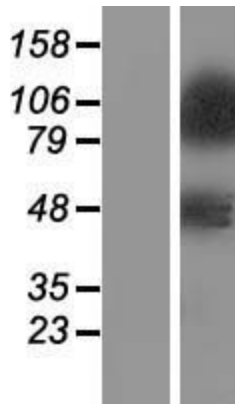
ORF Size:	2685 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional 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:	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:	<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_012482.3 , NP_036614.1
RefSeq Size:	4904 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
MW:	96.9 kDa

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]

Product images:


Circular map for RC209243



Western blot validation of overexpression lysate (Cat# [LY415727]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209243 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).