

## Product datasheet for **RC212519**

### ZNF81 (NM\_007137) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ZNF81 (NM_007137) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ZNF81
Synonyms:	dj54B20.6; HFZ20; MRX45
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC212519 ORF sequence, **codon optimized**.  
**Due to the complexity of NM\_007137, the ORF clone is codon optimized for mammalian Expression.**  
**The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.**

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGC**C

ATGCTGCCAATGAGGACGCACCACAGCCAGGGGAGCATGGGAGTGCCTGCGAGGTGTCAGTGTCTTTTCG  
 AAGATGTGACAGTTGATTTTTCAAGGGAGGAGTGGCAGCAGCTGGATAGCACCCAGAGGAGACTCTATCA  
 GGATGTCATGTTGAAAATTATAGTCACCTCCTCTCCGTGGGTTTGAAGTGCCTAAGCCCAGGAGTATC  
 TTCAAAGTGGAGCAGGGTGGGGCCCTGGACTTTGGAAGCGAAGCGCCTCATCAGTCTGTTCTGACG  
 GCAAGTTTGAATCAAACCATCCAACGACGGATCTCAGGCAAGTCAACCTTCCACTCAGAAATGGAGGG  
 TGAAGACACCCGCGACGACTCTCTACAGTATCTGGAGGAACTGTGGCAGGACGCGGAACAAATTAAG  
 CGCTGCCAGGAGAAGCACAACAACTGCTTAGTAGAACTACCTTTCTCAATAAAAAATTCTGAACACCG  
 AGTGGGATTATGAATATAAGGATTTTCGGCAAGTTCGTACATCCAAGCCCAGTCTTATCCTCTCTCAGAA  
 GCGGCCGATAAGAGAGACTCTTTTGGAAAAGAGCTTCAAACACAACCTGGACCTGCACATCCACAACAAA  
 TCCAACGCAGCCAAAACTCGACAAGACAATAGGACACGGCCAGGTCTTACACAGAACAGCTCCTACT  
 CTCATCATGAGAACACCCACACCGGTGTGAAGTCTGCGAGAGGAATCAGTGCAGGCAAGGTCTGAGCCT  
 GAAACACTCCCTGTCTCAGAATGTTAAATTTCCATTGGGAAAAAGCGAACACCTGCACAGAGTTTGGC  
 AAAATCTTCACTCAACGATCACATTTTTTCGCTCCGCGAGAAAATCCACACCGTTGAAAAACCCACGAGC  
 TCAGCAAGTGCCTAATGTGTTACACAGAAGCCACTGCTCAGTATCTATTTGAGGGTGCACCGCGACGA  
 GAAATTGTATATTTGACTAAATGTGAAAAGCCCTTATTGAGAACTCTGAACTGATTATGCATGAAAAG  
 ACCCATACGCGGAGAAGCCCTACAAGTGAACGAATGCGGAAAAATCCTTTTTCCAGGTGAGCAGCCTGC  
 TGCGGCATCAGACTACTCATACTGGTAAAAACTGTTGAGTGTCCGAATGCGGAAAAGGCTTCTCACT  
 TAATAGCGCGTGAATATCCACCAGAAGATCCACACGGGTGAACGACATCACAAGTCTCTGAGTGCAGG  
 AAAGCTTTCACACAGAAATCAACATTGAGAATGCATCAAAGGATACACACCGCGAGCGGAGTTATATAT  
 GCACACAGTGCAGACAAGCGTTTATACAGAAGGCCATTTGATCGCGCATCAGAGGATCCACACGGGAGA  
 AAAACCGTACGAGTGTCTGATTGCGGGAAATCATTTCTTCTAAATCTCAGTTGCAGATGCACAAAAGA  
 ATTCACACTGGGGAGAAACCGTATATCTGTACAGAATGCGGAAAAGCCTTCAACCAACCGGTCCAACCTTA  
 ACACACACCAGAAGTCCACACAGGAGAAAAGAGTTACATTTGCGCTGAATGCGGTAAAGCGTTTACTGA  
 CAGATCAAACCTTAATAAACACCAGACAATCCACACCGGCGAGAAGCCTTATGTGTGCGCTGACTGTGGC  
 AGAGCCTTTATTCAGAAATCTGAGCTTATTACTCATCAACGGATCCATACTACTGAGAAGCCCTATAAGT  
 GCCCTGATTGCGAGAAGTCTTCTCTAAAAACCTCACCTGAAGGTGCACCAGCGAATCCACACCGGGGA  
 GAAGCCCTACATCTGCGTGAATGTGGAAAAGCCTTTACCGATCGGTCCAATTTTAAACAGCACCAGACA  
 ATACACACGGGGACAAGCCATACAAGTCTGACTGTGGCAAGGGATTCACACAAAAGAGCGTGCTTT  
 CAATGCATAGAAATATCCACACT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC212519 representing NM\_007137  
Red=Cloning site Green=Tags(s)

MPANEDAPQPGEHGSACEVSVSFEDVTVDVSREEWQQLDSTQRRLYQDVMLLENYSHLLSVGFVVPKPEVI  
 FKLEQGEWPWLEGEAPHQSCSDGKFGIKPSQRRISGKSTFHSEMEGEDTRDSDLYSILEELWQDAEQIK  
 RCQEKHNKLLSRTTFLNKKILNTEWDYKDFGKVFHPSPLILSQRPHKRD SFGKSFKHNLDLHIHNK  
 SNAAKNLDKTIHGQVFTQNSSYSHHENTHTGVKFCERNQCGKVL SLKHSLSQNVKFP IGEKANTCTEFG  
 KI FTQRSHFFAPQKIHTVEKPHELSKCVNVTQKPLLSIYLRVHRDEKLYICTKCGKAFIQNSELIMHEK  
 TH TREKPYKCNECGKSFFQVSSLLRHQTTH TGEKLFECSECGKGFSLNSALNIHQKIHTGERHHKCECG  
 KAFTQKSTLRMHQRIHTGERSYICTQCGQAFIQKAHLIAHQRIHTGEKPYECSDCGKSFPSKSQLQMKR  
 IHTGEKPYICTECGKAFTNRSNLNTHQKSHTGEKSYICAECGKAFTDRSNFNKHQT IHTGEKPYVCADCG  
 RAFIQSELITHQRIHTTEKPYKCPDCEKSF SKKPHLKVHQRIHTGEKPYICAECGKAFTDRSNFNKHQT  
 IHTGDKPYKCSDCGKGFQKSVLSMHRNIHT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_007137

**ORF Size:** 1983 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\\_007137.2](#), [NM\\_007137.3](#), [NP\\_009068.2](#)

**RefSeq Size:** 7859 bp

**RefSeq ORF:** 1986 bp

**Locus ID:** 347344

**UniProt ID:** [P51508](#)

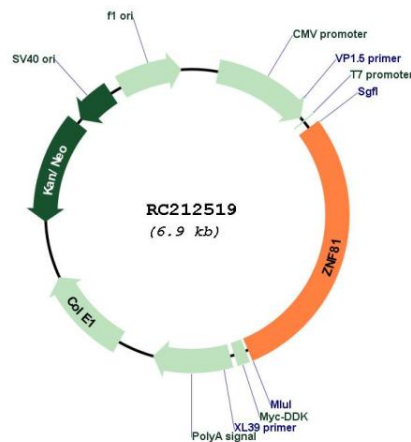
**Cytogenetics:** Xp11.23

**Protein Families:** Transcription Factors

**MW:** 76 kDa

**Gene Summary:** This gene encodes a protein that likely functions as a transcription factor. The protein contains an N-terminal KRAB domain and several C2H2-type zinc finger motifs. Mutations in this gene cause an X-linked form of intellectual disability (MRX45). Microduplication of a region of chromosome X including this gene has also been associated with other forms of intellectual disability. [provided by RefSeq, Jul 2017]

### Product images:



Circular map for RC212519