

## Product datasheet for **RC202382**

### **MECP2 (NM\_004992) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MECP2 (NM_004992) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MECP2
Synonyms:	AUTSX3; MRX16; MRX79; MRXS13; MRXSL; PPMX; RS; RTS; RTT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC202382 representing NM\_004992  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGTAGCTGGGATGTTAGGGCTCAGGGAAGAAAAGTCAGAAGACCAGGACCTCCAGGGCCTCAAGGACA  
 AACCCCTCAAGTTTAAAAAGGTGAAGAAAAGATAAGAAAAGAGAGAAAGAGGGCAAGCATGAGCCCGTGCA  
 GCCATCAGCCACCACCTCTGCTGAGCCCGCAGAGGCAGGCAAAGCAGAGACATCAGAAGGGTCAGGTCC  
 GCCCGGCTGTGCCGAAGCTTCTGCTCCCCAAACAGCGGCGCTCCATCATCCGTGACCGGGGACCCA  
 TGTATGATGACCCACCCTGCCTGAAGGCTGGACACGGAAGCTTAAGCAAAGGAAATCTGGCCGCTCTGC  
 TGGGAAGTATGATGTGATTTGATCAATCCCCAGGAAAAGCCTTTCGCTCTAAAGTGGAGTTGATTGCG  
 TACTTCGAAAAGGTAGGCGACACATCCCTGGACCCTAATGATTTTGACTTCACGGTAACTGGGAGAGGA  
 GCCCTCCCGGCGAGAGCAGAAACCACCTAAGAAGCCCAATCTCCAAAGCTCCAGGAACTGGCAGAGG  
 CCGGGGACGCCCAAAGGGAGCGCACACGAGACCCAAGCGGCCACGTGAGAGGTGTGCAGGTGAAA  
 AGGGTCTGGAGAAAAGTCTGGGAAGCTCTTGTCAAGATGCCTTTTCAAACCTTCGCCAGGGGGCAAGG  
 CTGAGGGGGTGGGGCCACCACATCCACCAGGTGATGGTATCAACGCCCCCGGAGGAAGCGAAAAGC  
 TGAGGCCGACCCTCAGGCCATTCCTCAAGAAACGGGGCCGAAAGCCGGGGAGTGTGGTGGCAGCCGCTGCC  
 GCCGAGGCCAAAAGAAAGCCGTGAAGGAGTCTTCTATCCGATCTGTGCAGGAGACCGTACTCCCATCA  
 AGAAGCGCAAGACCCGGGAGACGGTCAAGGAGTCAAGGAGTGGTGAAGCCCTGCTGGTGTCCAC  
 CCTCGGTGAGAAGAGCGGAAAGGACTGAAGACCTGTAAGAGCCCTGGGCGGAAAAGCAAGGAGAGCAGC  
 CCCAAGGGGCGCAGCAGCAGCGCCTCTCACCCCAAGAAGGAGCACCACCACCATCACCACCCTCAG  
 AGTCCCCAAAGGCCCCCTGCCACTGCTCCCACCCTGCCCCACCTCCACCTGAGCCCGAGGCTCCGA  
 GGACCCCAACAGCCCCCTGAGCCCGAGGACTTGAGCAGCAGCGTCTGCAAAGAGGAGAAGATGCCCAGA  
 GGAGGCTCACTGGAGAGCGACGGCTGCCCAAGGAGCCAGCTAAGACTCAGCCCGCGTTGCCACCGCCG  
 CCACGGCCGAGAAAAGTACAAACACCGAGGGGAGGGAGAGCGCAAAGACATTGTTTCATCTCCATGCC  
 AAGGCCAAACAGAGAGGAGCCTGTGGACAGCCGGACGCCGTGACCGAGAGAGTTAGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC202382 representing NM\_004992  
 Red=Cloning site Green=Tags(s)

MVAGMLGLREEKSEDQDLQGLKDKPLKFKKVKKDKKEEKEGKHEPVQPSAHHSAEPAEAGKAETSESGS  
 APAVPEASAPKQRRSIIRDRGPMYDDPTLPEGWTRKLRKSGRSAGKYDVYLINPQKAFRSKVELIA  
 YFEKVGDTSLDPNDFDFVTGGRGSPSRREQKPPKPKSPKAPGTGRGRGRPKGSGTTRPKAATSEGVQVK  
 RVLEKSPGKLLVKMPFQTSPPGKAEGGATTSTQVMVIKRPGRKRKAADPQAIIPKRRGRKPGSVVAAAA  
 AEAKKKAVKESSIRSVQETVLPVLIKRRKTRETVSIEVKEVVKPLLVSTLGEKSGKGLTKCKSPGRKSKES  
 PKGRSSSASSPPKKEHHHHHHSESPKAPVLLPPLPPPPPEPESEDPTSPPEPQDLSVCKEEKMPR  
 GGSLESDGCPKEPAKTQPAVATAATAAEKYKHRGEGERKDIVSSMPPRNREEPVDSRTPVTERVS

**TR**TRPLEQK**L**ISEED**L**AAND**I**L**D**YK**D**DDDK**V**

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg2917\\_b02.zip](https://cdn.origene.com/chromatograms/mg2917_b02.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_004992

**ORF Size:** 1458 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_004992.4](#)

**RefSeq Size:** 10182 bp

**RefSeq ORF:** 1461 bp

**Locus ID:** 4204

UniProt ID: [P51608](#)

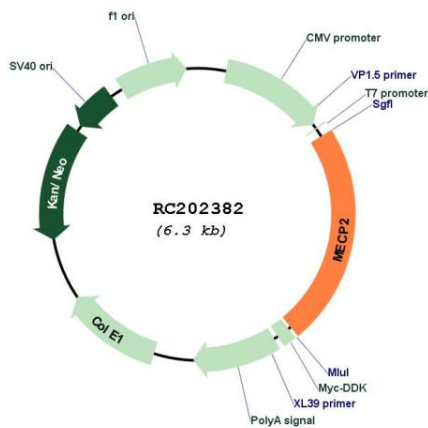
Cytogenetics: Xq28

Protein Families: Druggable Genome

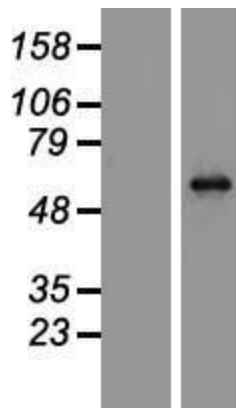
MW: 52.3 kDa

**Gene Summary:** DNA methylation is the major modification of eukaryotic genomes and plays an essential role in mammalian development. Human proteins MECP2, MBD1, MBD2, MBD3, and MBD4 comprise a family of nuclear proteins related by the presence in each of a methyl-CpG binding domain (MBD). Each of these proteins, with the exception of MBD3, is capable of binding specifically to methylated DNA. MECP2, MBD1 and MBD2 can also repress transcription from methylated gene promoters. In contrast to other MBD family members, MECP2 is X-linked and subject to X inactivation. MECP2 is dispensible in stem cells, but is essential for embryonic development. MECP2 gene mutations are the cause of most cases of Rett syndrome, a progressive neurologic developmental disorder and one of the most common causes of cognitive disability in females. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Oct 2015]

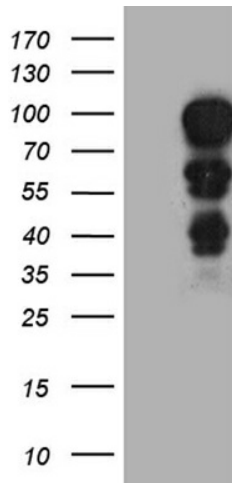
**Product images:**



Circular map for RC202382



Western blot validation of overexpression lysate (Cat# [LY417606]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202382 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MECP2 (Cat# RC202382, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MECP2 (Cat# [TA812397]). Positive lysates [LY417606] (100ug) and [LC417606] (20ug) can be purchased separately from OriGene.