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# Product datasheet for SC317205

## MECP2 (NM_001110792) Human Untagged Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | MECP2 (NM_001110792) Human Untagged Clone |
| **Tag:** | Tag Free |
| **Symbol:** | MECP2 |
| **Synonyms:** | AUTSX3; MRX16; MRX79; MRXS13; MRXSL; PPMX; RS; RTS; RTT |
| **Mammalian Cell Selection:** | None |
| **Vector:** | pCMV6-XL6 |
| **E. coli Selection:** | Ampicillin (100 ug/mL) |

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**Fully Sequenced ORF:**

```
>OriGene sequence for NM_001110792 edited
AGGGCTGTGGTAAAAGCCGTCCGGAAAATGGCCGCCGCCGCCGCCGCCGCGCCGAGCGGA
GGAGGAGGAGGAGGCGAGGAGGAGAGACTGGAAGAAAAGTCAGAAGACCAGGACCTCCAG
GGCCTCAAGGACAAACCCCTCAAGTTTAAAAAGGTGAAGAAAGATAAGAAAGAAGAGAAA
GAGGGCAAGCATGAGCCCGTGCAGCCATCAGCCCACCACTCTGCTGAGCCCGCAGAGGCA
GGCAAAGCAGAGACATCAGAAGGGTCAGGCTCCGCCCCGGCTGTGCCGGAAGCTTCTGCC
TCCCCCAAACAGCGGCGCTCCATCATCCGTGACCGGGGACCCATGTATGATGACCCCACC
CTGCCTGAAGGCTGGACACGGAAGCTTAAGCAAAGGAAATCTGGCCGCTCTGCTGGGAAG
TATGATGTGTATTTGATCAATCCCCAGGGAAAAGCCTTTCGCTCTAAAGTGGAGTTGATT
GCGTACTTCGAAAAGGTAGGCGACACATCCCTGGACCCTAATGATTTTGACTTCACGGTA
ACTGGGAGAGGGAGCCCCTCCCGGCGAGAGCAGAAACCACCTAAGAAGCCCAAATCTCCC
AAAGCTCCAGGAACTGGCAGAGGCCGGGGACGCCCCAAAGGGAGCGGCACCACGAGACCC
AAGGCGGCCACGTCAGAGGGTGTGCAGGTGAAAAGGGTCCTGGAGAAAAGTCCTGGGAAG
CTCCTTGTCAAGATGCCTTTTCAAACTTCGCCAGGGGGCAAGGCTGAGGGGGGTGGGGCC
ACCACATCCACCCAGGTCATGGTGATCAAACGCCCCGGCAGGAAGCGAAAAGCTGAGGCC
GACCCTCAGGCCATTCCCAAGAAACGGGGCCGAAAGCCGGGGAGTGTGGTGGCAGCCGCT
GCCGCCGAGGCCAAAAAGAAAGCCGTGAAGGAGTCTTCTATCCGATCTGTGCAGGAGACC
GTACTCCCCATCAAGAAGCGCAAGACCCGGGAGACGGTCAGCATCGAGGTCAAGGAAGTG
GTGAAGCCCCTGCTGGTGTCCACCCTCGGTGAGAAGAGCGGGAAAGGACTGAAGACCTGT
AAGAGCCCTGGGCGGAAAAGCAAGGAGAGCAGCCCCAAGGGGCGCAGCAGCAGCGCCTCC
TCACCCCCCAAGAAGGAGCACCACCACCATCACCACCACTCAGAGTCCCCAAAGGCCCCC
GTGCCACTGCTCCCACCCCTGCCCCCACCTCCACCTGAGCCCGAGAGCTCCGAGGACCCC
ACCAGCCCCCCTGAGCCCCAGGACTTGAGCAGCAGCGTCTGCAAAGAGGAGAAGATGCCC
AGAGGAGGCTCACTGGAGAGCGACGGCTGCCCCAAGGAGCCAGCTAAGACTCAGCCCGCG
GTTGCCACCGCCGCCACGGCCGCAGAAAAGTACAAACACCGAGGGGAGGGAGAGCGCAAA
GACATTGTTTCATCCTCCATGCCAAGGCCAAACAGAGAGGAGCCTGTGGACAGCCGGACG
CCCGTGACCGAGAGAGTTAGCTGACTTTACACGGAGCGGATTGCAAAGCAAACCAACAAG
AATAAAGGCAGCTGTTGTCTCTTCTCCTTATGGGTAGGGCTCTGACAAAGCTTCCCGATT
AACTGAAATAAAAAATATTTTTTTTTCTTTCAGTAAAAAAAAAAAAAAAAAAA
```

**Restriction Sites:** Please inquire

**ACCN:** NM_001110792

**Insert Size:** 1700 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 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

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| **OTI Annotation:** | This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA. |
| **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.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_001110792.1, NP_001104262.1 |
| **RefSeq Size:** | 1734 bp |
| **RefSeq ORF:** | 1497 bp |
| **Locus ID:** | 4204 |
| **UniProt ID:** | P51608 |
| **Cytogenetics:** | Xq28 |
| **Protein Families:** | Druggable Genome |
| **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]<br>Transcript Variant: This variant (2), also known as MECP2B, lacks exon 2. Translation is reported to initiate in the first exon resulting in a protein isoform (2) with a distinct N-terminus. This transcript is reported to be abundant in the central nervous system (PMID: 15034579, 17171659). |