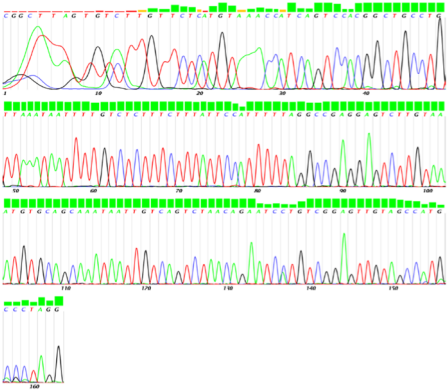
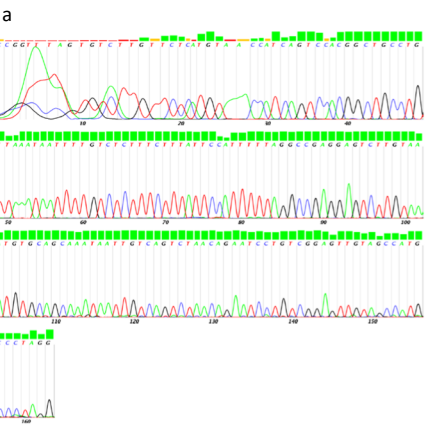


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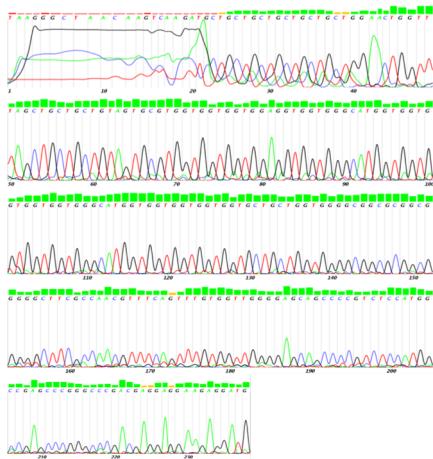
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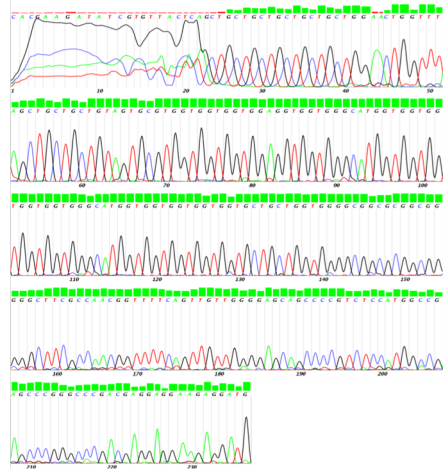
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[illegible]

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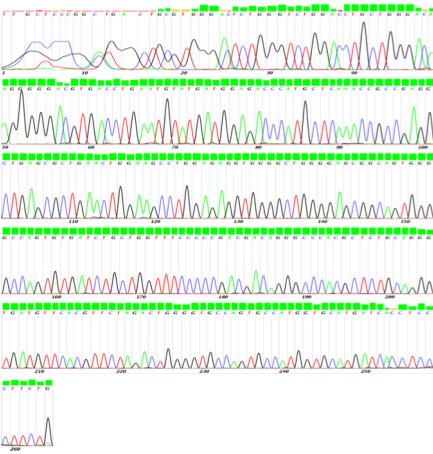


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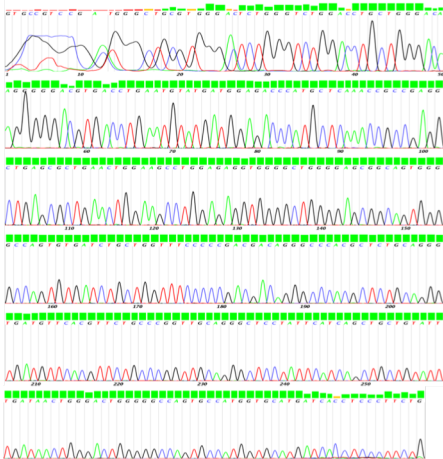


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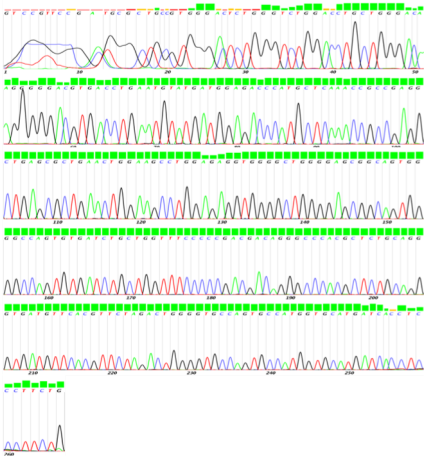
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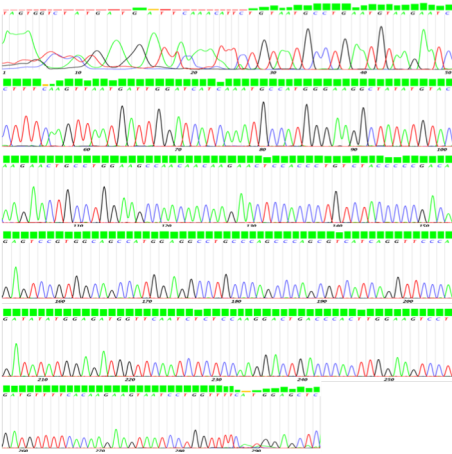


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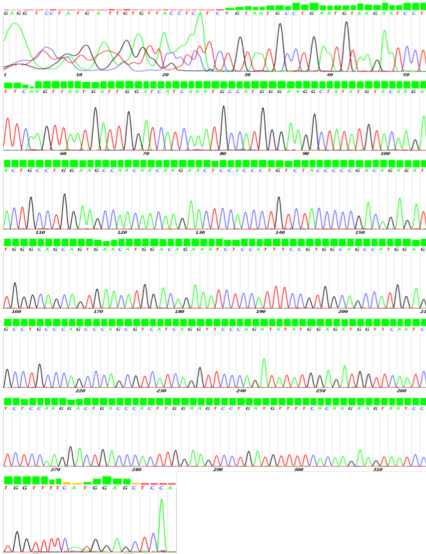


D **A549-Vim-Cas9 *MBD5* targeted region cut1**
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A549-Vim-Cas9 *MBD5* cut1 Clone 6
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TGGATCATCAAATGCCATGGGAAGGCTATATGTACAA
GAACTGCCTGGAAGCCAACAACAAGAACTCCACCCTG
TCTACCCCGACAGAGTCCGTGGCAGCCATGGAGGCC
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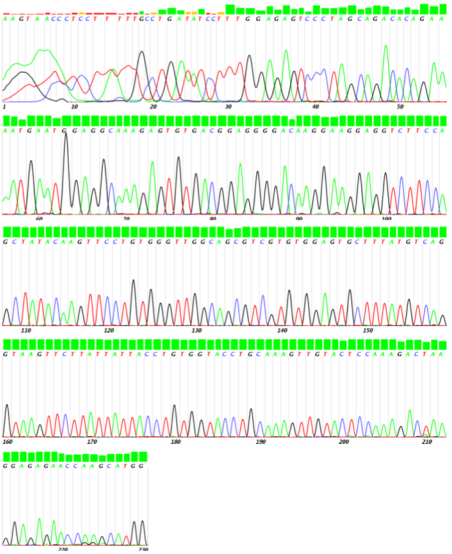


A549-Vim-Cas9 *MBD5* cut1 Clone 10
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CAAGAACTGCCTGGAAGCCAACAACAAGAACTCCAC
CCTGTCTACCCCGACAGAGATTGGGCAGCAGTGAA
CATGGACAGAAATCTCCATTCCGTGGCAGCCATGG
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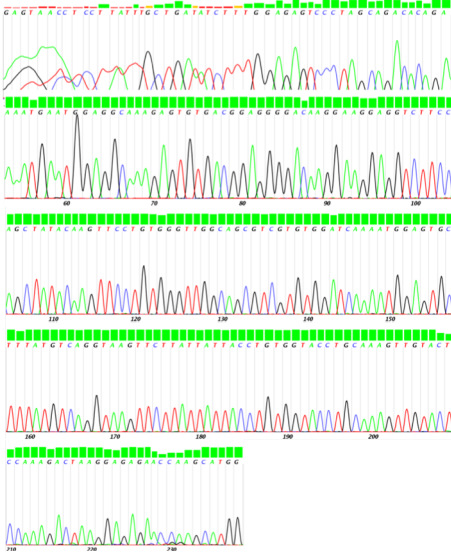


Sequence of A549-Vim-Cas9 *MBD5* targeted region cut2
GAAGGCCATCATGCTCTGTAATATAAGGATATCATCTTATTGCTGATATCTTTGGAGAGTCCCTAGCAGACACAGAAAATGAATGGAGGCAAAGAGTGTGACGGAGGGGACAAGGAAGGAGTCTTCCAGCTATACAAGTTCCTGTGGGTT**GGCAGCGTCGTGTGGATCAAAA**TGGAGTGCTTTATGTCAGGTAAGTCTTATTATTACCTGTGGTACCTGCAAAAGTTGACTCTCAAAGACT**AAGGAGAGAACCAAGCATGG**

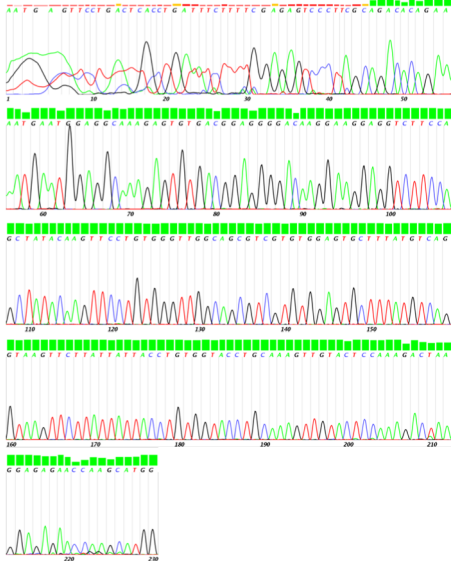
A549-Vim-Cas9 *MBD5* cut2 Clone6
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GGAAGGAGGTCTTCCAGCTATACAAGTTCCTGTGG
GTTGGCAGCGTCGTGTGGAGTGCTTTATGTACGGT
AAGTTCATTATTATTACCTGTGGTACCTGCAAAAGTTG
TACTCAAAGACTAAGGAGAGAACCAAGCATGGA



A549-Vim-Cas9 *MBD5* cut2 Clone10
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AGGCAAAGAGTGTGACGGAGGGGACAAGGAA
GGAGGTCTTCCAGCTATACAAGTTCCTGTGGGTT
GGCAGCGTCGTGTGGATCAAAATGGAGTGCTTT
ATGTCAGGTAAGTCTTATTATTACCTGTGGTAC
CTGCAAAGTTGTACTCAAAGACTAAGGAGAGA
AccAAGCATGGA



A549-Vim-Cas9 *MBD5* cut2 Clone11
AGACaCAGAAAATGAATGGAGGCAAAGAGTGTGA
CGGAGGGGACAGGAAGGAGGTCTTCCAGCTATA
CAAGTTCCTGTGGGTTGGCAGCGTCGTGTGGAGTG
CTTTATGTCAGGTAAGTCTTATTATTACCTGTGGT
ACCTGCAAAGTTGTACTCAAAGACTAAGGAGAGA
AccAAGCATGGA



Supplemental Figure S18. Sequence of A549-Vim Cas9 CRISPR knock out targeted regions of (A) *KAT2B*, (B) *ARID1B*, (C) *EP400* and (D) *MBD5*. In bold are shown forward and reverse complement sequences of primers used for amplification of the targeted region. sgRNA sequences are underlined in corresponding sequence. Result of sanger sequencing for each A549-Vim-Cas9 single cell clone are shown as sequence and chromatogram.