

Euchromatic histone methyltransferases regulate peripheral heterochromatin tethering via histone and non-histone protein methylations

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Wt. LMNB1Sequence

ATGGCGACTGCGACCCCGTGCCGCCGCGGATGGGCAGCCGCGCTGGCGGCCCCACCACGCCGCTGAGC
C
CCACGCGCCTGTTCGCGGCTCCAGGAGAAGGAGGAGCTGCGCGAGCTCAATGACCGGCTGGCGGTGTACA
T
CGACAAGGTGCGCAGCCTGGAGACGGAGAACAGCGCGCTGCAGCTGCAGGTGACGGAGCGCGAGGAGGT
G
CGCGGCCGCTGAGCTCACCGGCTCAAGGCGCTCTACGAGACCGAGCTGGCCGACGCGCGACGCGCGCTC
G
ACGACACGGCCCGGAGCGCGCCAAGCTGCAGATCGAGCTGGGCAAGTGCAAGGCGGAACACGACCAGC
T
GCTCCTCAACTATGCTAAGAAGGAATCTGATCTTAATGGCGCCAGATCAAGCTTCGAGAATATGAAGC
A
GCACTGAATTTCGAAAGATGCAGCTCTTGCTACTGCACTTGGTGACAAAAAAGTTTAGAGGGAGATTTG
G
AGGATCTGAAGGATCAGATTGCCAGTTGGAAGCCTCCTTAGCTGCAGCCAAAAACAGTTAGCAGATG
A
AACTTTACTTAAAGTAGATTTGGAGAATCGTTGTCAGAGCCTTACTGAGGACTTGGAGTTTCGCAAAAG
C
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C
GTCAAATTGAGTATGAGTACAAGCTGGCGCAAGCCCTTCATGAGATGAGAGAGCAACATGATGCCAAG
T
GAGGCTGTATAAGGAGGAGCTGGAGCAGACTTACCATGCCAAACTTGAGAATGCCAGACTGTCATCAGA
G
ATGAATACTTCTACTGTCAACAGTGCCAGGGAAGAACTGATGGAAAGCCGCATGAGAATTGAGAGCCTT
T
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T
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G
GATCAAATGCAGCAACAGCTGAATGACTATGAACAGCTTCTTGATGTAAAGTTAGCCCTGGACATGGAA
A
TCAGTGCTTACAGGAAACTCTTAGAAGGCGAAGAAGAGAGGTTGAAGCTGTCTCCAAGCCCTTCTTCCC
G
TGTGACAGTATCCCGAGCATCCTCAAGTCGTAGTGTACGTACAACCTAGAGGAAAGCGGAAGAGGGTTGA

T
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A
TCGAAGAAATTGATGTTGATGGGAAATTTATCCGCTTGAAGAACACTTCTGAACAGGATCAACCAATGG
G
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G
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A
TCTGGAAGAACCAGAACTCGTGGGGCACTGGCGAAGATGTGAAGGTTATATTGAAAAATTCCTCAGGGAG
A
GGAGGTTGCTCAAAGAAGTACAGTCTTTAAAAACAACCATACCTGAAGAAGAGGAGGAGGAGGAAGAAGC
A
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G CAATTATGTAA

K417-LMNB1 sequence

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C
CCACGCGCCTGTCGCGGCTCCAGGAGAAGGAGGAGCTGCGCGAGCTCAATGACCGGCTGGCGGTGTACA
T
CGACAAGGTGCGCAGCCTGGAGACGGAGAACAGCGCGCTGCAGCTGCAGGTGACGGAGCGCGAGGAGGT
G
CGCGGCCGCTGAGCTCACCGCCTCAAGGCGCTCTACGAGACCGAGCTGGCCGACGCGCGACGCGCGCTC
G
ACGACACGGCCCGGAGCGCGCCAAGCTGCAGATCGAGCTGGGCAAGTGCAAGGCGGAACACGACCAGC
T
GCTCCTCAACTATGCTAAGAAGGAATCTGATCTTAATGGCGCCAGATCAAGCTTCGAGAATATGAAGC
A
GCACTGAATTGAAAGATGCAGCTCTTGCTACTGCACTTGGTGACAAAAAAGTTTAGAGGGAGATTTG
G
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A
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C
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C
GTCAAATTGAGTATGAGTACAAGCTGGCGCAAGCCCTTCATGAGATGAGAGAGCAACATGATGCCAAG
T
GAGGCTGTATAAGGAGGAGCTGGAGCAGACTTACCATGCCAAACTTGAGAATGCCAGACTGTCATCAGA
G
ATGAATACTTCTACTGTCAACAGTGCCAGGGAAGAACTGATGGAAAGCCGCATGAGAATTGAGAGCCTT
T
CATCCAGCTTTCTAATCTACAGAAAGAGTCTAGAGCATGTTTGGAAAGGATTCAAGAATTAGAGGACT
T
GCTTGCTAAAGAAAAAGACAACTCTCGTCGCATGCTGACAGACAAAGAGAGAGATGGCGAAATAAG
G
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A
TCAGTGCTTACAGGAAACTCTTAGAAGGCGAAGAAGAGAGGTTGAAGCTGTCTCCAAGCCCTTCTTCCC
G
TGTGACAGTATCCCGAGCATCCTCAAGTCGTAGTGTACGTACAACCTAGAGGAAAGCGG **GCC**AGGGTTG

AT

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A

TCGAAGAAATTGATGTTGATGGGAAATTTATCCGCTTGAAGAACACTTCTGAACAGGATCAACCAATGG

G

AGGCTGGGAGATGATCAGAAAAATTGGAGACACATCAGTCAGTTATAAATATACCTCAAGATATGTGCT

G

AAGGCAGGCCAGACTGTTACAATTTGGGCTGCAAACGCTGGTGTACAGCCAGCCCCCAACTGACCTC

A

TCTGGAAGAACCAGAACTCGTGGGGCACTGGCGAAGATGTGAAGGTTATATTGAAAAATTCCTCAGGGAG

A

GGAGGTTGCTCAAAGAAGTACAGTCTTTAAAAACAACCATACCTGAAGAAGAGGAGGAGGAAGAAGC

A

GCTGGAGTGGTTGTTGAGGAAGAACTTTTCCACCAGCAGGGAACCCCAAGAGCATCCAATAGAAGCTGT

G CAATTATGTAA