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Product datasheet for MC205145

Cdyl (NM_009881) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cdyl (NM_009881) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Cdyl
Synonyms:	AI325931
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)

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Fully Sequenced ORF:

>BC055103
GAGGACATCTGTTCCTACCTAAGAGCACTCACCTGAGATGCTCAAAGGTCCAGAAGAAACACTTCTCGGG
TGACAAAGCAGGTGGTGACCAGAGAACAGAGGCCCCCCAAAAATTTTATGGCATTCAAGGCAAAGCACAG
CCAACCCGGAGGGAAAGCAAGAGTCCAGCCTGGAAATACATAGCCCAACCCGAAGGTTATCTCTGAAGGA
AAACAATGGGCATAGGCAATAGCCAGCCTAATTCACAGGAAGCCCAGCTCTGCACACTTCCAGAGAAAGC
TGAACAACCTACTGATGATAACACCTGCCAGCAAAATAATGTGGTTCCTGCAACAGTCTCAGAACCCGAT
CAAGCGTCCCCTGCAATTCAAGACGCGGAGACTCAGGTGGAAAGTATCGTTGACAAAAGGAAAAACAAGA
AAGGGAAGACAGAATATCTGGTGCGGTGGAAAGGCTATGACAGTGAGGATGACACGTGGGAGCCTGAGCA
GCACCTGGTGAACTGTGAGGAATACATCCATGACTTCAACCGGCGCCACAACGAGAGGCAAAAGGAAGGT
AGCCTGGCTCGTGCCAGCAGAGCCTCCCCCAGCAACGCCCGGAAGCAGATTTCCAGGTCCACCCACAGCA
CTCTCTCCAAGACCAACTCCAAAGCACTTGTGGTAGGCAAAGATCATGAGTCCAAAAGCAGCCAGCTGTT
GGCTGCCAGCCAGAAGTTCAGGAAAAACCCAGCCCCATCTCTTGCAAACCGCAAGAACATGGACCTCGCC
AAGTCAGGGATCAAAATTCTCGTGCCTAAGAGCCCCGTTAAGGGCAGGACCTCGGTTGATGGCTTTCAGG
GGGAGAGCCCCGAGAAGCTGGACCCTGTGGATCAGGGTGCCGAGGACACTGTAGCCCCAGAGGTGACTGC
AGAGAAGCCCACTGGGGCTTTGCTGGGCCCTGGTGCGGAGCGAGCCAGGATGGGGAGCAGGCCCCGAATA
CATCCACTAGTGCCTCAGGTTTCTGGCCCCGTGACTGCTGCCATGGCCACAGGCTTAGCTGTTAATGGAA
AAGGTACATCTCCATTCATGGATGCGCTAGCAGCCAACGGAACAGTCACCATACAGACATCCGTAACAGG
AGTGACAGCCGGGAAAAGGAAATTTATTGACGACAGAAGAGACCAACCTTTTGACAAGCGGTTGCGTTTC
AGTGTGAGGCAGACAGAGAGTGCCTACAGATACAGAGATATTGTCGTCAGGAAGCAAGATGGCTTCACCC
ACATCTTGTTATCCACAAAATCGTCAGAGAATAACTCACTAAACCCAGAGGTGATGAAAGAAGTGCAGAG
CGCCCTGAGCACAGCTGCAGCCGACGACAGCAAGCTGGTTCTGCTCAGCGCCGTGGGCAGCGTCTTCTGC
TGTGGTCTGGACTTTATTTATTTTATTCGGCGCCTCACAGATGACCGAAAGAGAGAAAGCACTAAAATGG
CAGACGCTATCAGAAACTTCGTGAATACTTTCATTCAGTTTAAGAAGCCTATTATTGTAGCTGTTAATGG
CCCAGCCATTGGACTAGGAGCATCCATATTGCCTCTTTGTGATGTGGTTTGGGCTAACGAAAAGGCTTGG
TTTCAAACACCCTATACCACCTTCGGACAGAGTCCAGATGGCTGCTCTACCGTTATGTTTCCCAAGATTA
TGGGAGGAGCATCTGCGAATGAAATGCTGTTCAGTGGGCGGAAGTTGACGGCACAGGAGGCCTGTGGCAA
GGGTCTGGTCTCCCAGGTGTTTTGGCCAGGAACCTTCACACAGGAAGTCATGGTTCGAATCAAGGAGCTG
GCTTCATGTAACCCAGTTGTCCTGGAGGAATCCAAAGCCCTGGTGCGCTGCAATATGAAGATGGAGCTAG
AGCAGGCCAATGAGAGAGAATGTGAAGTGCTGAAGAAGATCTGGGGCTCCGCCCAGGGCATGGACTCCAT
GTTAAAGTACTTACAGAGGAAAATCGATGAGTTCTGATGGGCAGGCTGAGCAGGACATCGGTGGCTCCCA
CTTGCTACGTCGTCCTGCAGTGGCTCGTGCTTGGAGGCAGAACTGGAAACATCCGAGCTATTTATTGCCG
CGGAGTTTTTAAGTACTGTAACTTTAAAATAACTACAAAGCTCCAAAAAAAAAAAAAAAAAAAAAAAAA AAAA

Restriction Sites: SfiI-SfiI

ACCN: NM_009881

Insert Size: 1782 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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).

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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:	BC055103, AAH55103
RefSeq Size:	2174 bp
RefSeq ORF:	1782 bp
Locus ID:	12593
UniProt ID:	Q9WTK2
Cytogenetics:	13 14.39 cM
Gene Summary:	Isoform 2: Chromatin reader protein that recognizes and binds histone H3 trimethylated at 'Lys-9', dimethylated at 'Lys-27' and trimethylated at 'Lys-27' (H3K9me3, H3K27me2 and H3K27me3, respectively) (PubMed:12947414). Part of multimeric repressive chromatin complexes, where it is required for transmission and restoration of repressive histone marks, thereby preserving the epigenetic landscape (PubMed:12947414). Required for chromatin targeting and maximal enzymatic activity of Polycomb repressive complex 2 (PRC2); acts as a positive regulator of PRC2 activity by bridging the pre-existing histone H3K27me3 and newly recruited PRC2 on neighboring nucleosomes (By similarity). Acts as a corepressor for REST by facilitating histone-lysine N-methyltransferase EHMT2 recruitment and H3K9 dimethylation at REST target genes for repression (By similarity). Involved X chromosome inactivation in females: recruited to Xist RNA-coated X chromosome and facilitates propagation of H3K9me2 by anchoring EHMT2 (PubMed:24144980). Required for neuronal migration during brain development by repressing expression of RHOA (PubMed:28076783). In addition to act as a chromatin reader, acts as a hydro-lyase (By similarity). Shows crotonyl-coA hydratase activity by mediating the conversion of crotonyl-CoA ((2E)-butenoyl-CoA) to beta-hydroxybutyryl-CoA (3-hydroxybutanoyl-CoA), thereby acting as a negative regulator of histone crotonylation (By similarity). Histone crotonylation is required during spermatogenesis; down-regulation of histone crotonylation by CDYL regulates the reactivation of sex chromosome-linked genes in round spermatids and histone replacement in elongating spermatids (PubMed:28803779). May have histone acetyltransferase activity; such activity is however unsure in vivo (PubMed:12072557).[UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (1) encodes the longer isoform (1).

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