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# Product datasheet for MC203421

## Trim28 (NM_011588) Mouse Untagged Clone

### Product data:

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| **Product Type:** | Expression Plasmids |
| **Product Name:** | Trim28 (NM_011588) Mouse Untagged Clone |
| **Tag:** | Tag Free |
| **Symbol:** | Trim28 |
| **Synonyms:** | AA408787; KAP-1; KRIP-1; MommeD9; Tif1b; Tif1beta |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | PCMV6-Kan/Neo (PCMV6KN) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |



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**Fully Sequenced ORF:**

>BC058391
CGGCGGCGTGTGAATGGCGGCCTCGGCGGCAGCGACTGCAGCGGCCTCGGCCGCGACGGCCGCCTCGGCG
GCCTCTGGTAGCCCAGGGTCGGGCGAGGGCTCGGCGGGCGGTGAGAAGCGTCCGGCTGCTTCCTCAGCCG
CGGCGGCCTCTGCAGCCGCGTCGTCCCCTGCGGGGGGCGGTGGCGAGGCGCAGGAGCTTCTGGAGCACTG
CGGCGTGTGTCGCGAGCGCCTGCGGCCCGAGCGGGATCCTCGGCTGCTGCCCTGTCTACATTCGGCCTGC
AGTGCCTGCCTGGGCCCCGCTACACCCGCCGCAGCGAATAATTCGGGGGATGGCGGCTCGGCGGGCGACG
GCGCTATGGTGGATTGTCCAGTGTGCAAACAGCAGTGCTACTCCAAAGACATCGTGGAGAATTATTTTAT
GCGTGATAGTGGCAGTAAGGCCTCTTCTGATTCCCAGGATGCTAACCAGTGCTGCACTAGCTGTGAAGAT
AATGCCCCAGCCACTAGCTATTGTGTGGAGTGCTCTGAACCACTTTGTGAGACCTGTGTGGAGGCTCACC
AGCGGGTGAAATACACCAAGGACCACACTGTGCGCTCCACAGGACCTGCTAAGACTCGAGATGGAGAGCG
AACAGTCTACTGTAATGTGCACAAGCATGAGCCCCTCGTGCTGTTCTGTGAGAGCTGTGACACACTCACC
TGCCGCGACTGCCAGCTCAACGCTCACAAGGACCATCAGTACCAGTTTTTGGAAGATGCAGTGAGGAACC
AACGTAAACTCTTGGCTTCACTGGTGAAACGTCTTGGGGACAAACATGCCACACTTCAGAAAAACACCAA
GGAGGTTCGAAGCTCGATCCGCCAGGTGTCTGATGTGCAGAAGCGAGTGCAGGTTGATGTCAAGATGGCC
ATTCTGCAGATCATGAAGGAGCTGAATAAGCGGGGTCGAGTTCTGGTCAATGATGCCCAGAAGGTGACCG
AGGGTCAGCAGGAACGTCTGGAGCGCCAGCACTGGACCATGACCAAAATTCAGAAGCACCAGGAACACAT
TTTGCGTTTTGCCTCTTGGGCTCTGGAGAGTGATAACAATACAGCTCTCTTGCTCTCTAAGAAGCTGATC
TATTTCCAGCTGCATCGGGCCCTCAAAATGATTGTGGATCCTGTGGAGCCTCATGGTGAGATGAAGTTTC
AGTGGGATCTCAATGCCTGGACCAAGAGTGCTGAAGCCTTTGGCAAGATTGTGGCTGAGCGTCCTGGTAC
GAACTCCACAGGTCCTGGGCCCATGGCTCCTCCAAGAGCCCCAGGCCCTCTAAGCAAGCAAGGTTCTGGC
AGTAGCCAGCCCATGGAAGTACAAGAGGGATATGGCTTTGGGTCAGATGATCCCTATTCAAGTGCAGAGC
CGCATGTATCAGGCATGAAGCGGTCCCGCTCTGGTGAGGGAGAGGTAAGTGGCCTCTTAAGGAAGGTGCC
ACGTGTGAGCCTTGAACGCCTGGATCTGGACCTCACCTCTGACAGCCAGCCACCAGTCTTCAAGGTCTTT
CCTGGAAGCACTACTGAGGACTACAATCTGATTGTTATTGAGCGTGGTGCTGCTGCAGCAGCTGCTGGTC
AGGCTGGGACTGTGCCACCAGGAGCCCCTGGTGCCCCACCCCTTCCTGGCATGGCCATTGTCAAGGAAGA
AGAGACAGAAGCTGCTATTGGAGCTCCCCCGGCTGCCCCCGAGGGTCCTGAAACCAAGCCTGTGTTGATG
CCTCTGACTGAAGGTCCTGGTGCCGAGGGACCTCGTCTAGCTTCACCTAGTGGCAGTACCAGCTCAGGCT
TGGAGGTGGTGGCTCCTGAGGTTACCTCAGCCCCAGTAAGTGGGCCAGGTATCCTGGATGACAGTGCCAC
TATCTGCCGTGTCTGCCAGAAACCAGGTGACCTGGTCATGTGTAACCAGTGCGAATTTTGCTTCCACCTG
GATTGCCACCTCCCTGCCCTGCAGGATGTTCCAGGGGAGGAATGGAGTTGCTCACTCTGCCACGTGCTCC
CTGACCTAAAGGAGGAAGATGGAAGCCTCAGCCTGGATGGAGCAGATAGCACTGGTGTGGTAGCTAAACT
CTCACCAGCCAACCAGCGGAAATGTGAGCGTGTTCTCCTGGCCCTGTTCTGCCATGAACCATGCCGTCCC
TTGCATCAGCTGGCTACCGACTCTACATTCTCCATGGAGCAGCCTGGTGGTACCCTAGACCTGACCTTGA
TTCGTGCTCGCCTCCAAGAGAAGCTGTCACCTCCTTATAGCTCCCCCCAGGAGTTTGCTCAAGATGTGGG
CCGCATGTTCAAACAGTTCAACAAGCTGACTGAGGACAAGGCAGATGTTCAGTCCATCATCGGCTTGCAG
CGCTTCTTTGAGACACGCATGAATGATGCCTTTGGTGACACCAAGTTTTCTGCTGTGCTGGTAGAACCAC
CACCATTGAACCTTCCCAGTGCTTGCCTAAGTTCTCAGGAGCTCTCTGGCCCTGGTGATGGCCCCTGAAG
CTGGGGCTCTTGTGGTCAGCCCAGTCCAGCTCTGGTCTCTGTATTTTCACCCCATACCCTGTCCTTTGGT
GGCCTGACTCCTGTTCTTGCTGGCCCCATCGTCCCCTCAGTCCCTCTTCACAAAATGGTTTTTACTTCTG
TGGATTTAATAAAAACTTCACTGAGTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA A

**Restriction Sites:** AscI-NotI

**ACCN:** NM_011588

**Insert Size:** 2505 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).

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| **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:** | BC058391, AAH58391 |
| **RefSeq Size:** | 2731 bp |
| **RefSeq ORF:** | 2505 bp |
| **Locus ID:** | 21849 |
| **UniProt ID:** | Q62318 |
| **Cytogenetics:** | 7 A1 |

**Gene Summary:** Nuclear corepressor for KRAB domain-containing zinc finger proteins (KRAB-ZFPs). Mediates gene silencing by recruiting CHD3, a subunit of the nucleosome remodeling and deacetylation (NuRD) complex, and SETDB1 (which specifically methylates histone H3 at 'Lys-9' (H3K9me)) to the promoter regions of KRAB target genes. Enhances transcriptional repression by coordinating the increase in H3K9me, the decrease in histone H3 'Lys-9 and 'Lys-14' acetylation (H3K9ac and H3K14ac, respectively) and the disposition of HP1 proteins to silence gene expression. Recruitment of SETDB1 induces heterochromatinization. May play a role as a coactivator for CEBPB and NR3C1 in the transcriptional activation of ORM1. Also corepressor for ERBB4. Inhibits E2F1 activity by stimulating E2F1-HDAC1 complex formation and inhibiting E2F1 acetylation. May serve as a partial backup to prevent E2F1-mediated apoptosis in the absence of RB1. Important regulator of CDKN1A/p21(CIP1). Has E3 SUMO-protein ligase activity toward itself via its PHD-type zinc finger. Specifically sumoylates IRF7, thereby inhibiting its transactivation activity. Ubiquitinates p53/TP53 leading to its proteosomal degradation; the function is enhanced by MAGEC2 and MAGEA2, and possibly MAGEA3 and MAGEA6. Mediates the nuclear localization of KOX1, ZNF268 and ZNF300 transcription factors. Probably forms a corepressor complex required for activated KRAS-mediated promoter hypermethylation and transcriptional silencing of tumor suppressor genes (TSGs) or other tumor-related genes in colorectal cancer (CRC) cells. Required to maintain a transcriptionally repressive state of genes in undifferentiated embryonic stem cells (ESCs). In ESCs, in collaboration with SETDB1, is also required for H3K9me3 and silencing of endogenous and introduced retroviruses in a DNA-methylation independent-pathway (PubMed:20164836). Associates at promoter regions of tumor suppressor genes (TSGs) leading to their gene silencing. The SETDB1-TRIM28-ZNF274 complex may play a role in recruiting ATRX to the 3'-exons of zinc-finger coding genes with atypical chromatin signatures to establish or maintain/protect H3K9me3 at these transcriptionally active regions (By similarity). Acts as a corepressor for ZFP568 (PubMed:22110054, PubMed:27658112). [UniProtKB/Swiss-Prot Function]