

Product datasheet for **MC223825**

Ctr9 (NM_009431) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Ctr9 (NM_009431) Mouse Untagged Clone
Tag: Tag Free
Symbol: Ctr9
Synonyms: AA409336; mKIAA0155; Sh2bp1; Tsbp; Tsp
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC223825 representing NM_009431
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGTCCGGGGCTCCATCGAGATCCCCTCCGGGATACTGACGAGGTCATTGAACCTGACTTCGATCAGT
TACCGGAGGGAGACGAAGTCATCAGCATTCTGAAGCAGGAGCACACAACCTGCACATATGGATTGCCTT
GGCGCTGGAATACTACAAGCAAGGGAAAACAGAAGAGTTTGTGAAGCTGCTGGAGGCAGCACGGATAGAT
GGCAATTTGGACTATCGAGATCACGAGAAAGACCAGATGACTTGCTTGGATACATTGGCAGCCTACTATG
TACAACAGGCTCGAAAAGAAAAGAACAAGGACAATAAGAAGGACCTTATTACGCAGGCAACTTTGTTATA
TACAATGGCTGATAAAATTATTATGATGATCAGAACCATTTGTTGGGAAGAGCCTGCTTCTGTCTGCTC
GAGGGCGACAAAATGGACCAAGCTGACGCACAGTTTCACTTTGTACTTAACCAAGTCTCCAAACAATTC
CAGCCCTTCTGGGAAAGCTTGTATTTCACTTCAACAAGAAGGATTACAGAGGAGCTCTGGCTTACTATAA
AAAAGCATTGCGCACTAACCCGGGATGTCCAGCTGAAGTTCGTTTAGGAATGGGCCATTGCTTTGTCAA
CTTAACAACTGGAAAAGCTCGACTGGCATTACGAGAGCCCTGGAACCTCAACTCGAAGTGTGTGGGAG
CACTGGTTGGACTGGCTGTTCTAGAACAACAATAAAGAGGCTGATTCCATCAAAAATGGCGTGCAGCT
TCTTTCCAGAGCCTATACTATTGATCCTAGCAACCCGATGGTACTGAACCATTTGGCAAACCACTTTTTC
TTCAAGAAGGATTATAGTAAAGTGCAGCACCTGGCTCTCCACGCATTCCACAACCCGAGGTGGAGGCTA
TGCAAGCAGAAAGCTGTTACCAGCTGGCTCGGTCTTCCATGTTCCAGGAAGATTATGACCAAGCCTTTCA
GTACTACTATCAAGCCACACAGTTTGTCTCATCTTCTTTGTCTTACCATTTTTTGGTTTGGGACAAATG
TATATTTATCGAGGTGACAAAGAGAATGCATCTCAGTCTTTGAGAAAAGTTTTGAAAGCTTATCCGAACA
ATTATGAACTATGAAAATCTTGGCTCTCTATGCTGCTTCCAGAGATCAGGAGAAACGAGACATAGC
CAAGGGCCATTTGAAGAAGGTCACAGAACAGTATCCTGATGACGTGGAAGCTTGGATTGAGTTGGCCAG
ATCTTAGAACAGACTGACATACAGGGTGCCTTTTCCAGCTTATGGAACAGCCACACGCATCTGCAGGAGA
AAGTGCAGGCCGATGTCCCTCCCGAGATTTTGAATAATGTTGGGGCCCTCATTTTAGACTCGGAAACCT
GGGGGAAGCAAAGAAATACTTCCCTGGCCTCACTGGACCGCGAAAAGGCAGAGGCCGAGCATGATGAACAC
TACTACAATGCCATCTCTGTCCACCATCTACAATTTAGCCAGGCTCTATGAGGCCATGTGTGAATTTT



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ACGAAGCAGAGAACTGTACAAAAACATTTTACGAGAGCATCCTAACTACGTTGATTGCTATCTACGCCT
 AGGAGCCATGGCCAGAGATAAAGGAACTTCTATGAAGCTTCAGACTGGTTTAAGGAAGCCCTTCAGATC
 AATCAGGATCATCCGGATGCCTGGTCTTTGATTGGTAACCTCCATCTGGCAAAACAAGAATGGGGCCAG
 GTCAGAAGAAGTTTGAGAGGATATTAACACAGCCAGCCACACAGAGTGACACCTACTCTATGCTGGCCCT
 TGGCAATGTGTGGCTCCAGACTTTGCATCAGCCAAACCCGAGACCGAGAAAAGGAAAAGGCCATCAAGAC
 CGTGCCCTGGCCATCTACAAACAAGTCCTCAGAAATGATGCCAAGAACCCTGTATGCTGCCAATGGCATAG
 GAGCTGTCTTGGCCACAAAGGATACTCCGTGAAGCTCGTGATGTTTTCGCCCAAGTGAGAGAAGCAAC
 AGCAGATATCAGTGATGTGTGGTTGAACCTAGCACACATCTACGTGGAGCAGAAGCAGTATATCAGCGCC
 GTTCAGATGTATGAGAACTGCCTCAGAAAGTTCTATAAGCACAAAACACTGAGGTTGTGCTCTACCTGG
 CCCGCGCCCTCTTCAAGTGCGGCAAGCTGCAGGAGTGCAAGCAGACTCTGCTGAAGGCCAGACAGTGGC
 ACCCAGTGACACAGTTCTGATGTTTAAATGTGGCCTTGGTCTTGAAGATTAGCTACCTCTGCTGAAA
 GATGAAAAAGTAATCTGAAGGAAGTCTTAATGCTGTGAAAGAGCTGGAGCTCGCACACAGGTAAGTCA
 GTTACTTGAGCAAAGTTGGAGATAAAATGAGATTTGATTTGGCCCTTGTGCTCTGAAGCCAGGCAGTG
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 CTGCGGGCCAAGCAGGAGCAGGAAAAGGAGCTCTTAAGACAGAAGCTTCTCAAAGAGCAGGAAGAGAAAC
 GTCTCAGAGAAAAGGAAGAACAAAAGAACTTTTGAACAGCGTCCCAAGTATGTGGAGAAGACAAAAA
 TATCCTTATGTTCACTGGCGAGACTGAAGCAACAAGGAGAAGAAAAGAGGTGGAGGTGGAGGGCGCGT
 TCCAAGAAAGGAGGCGAGTTTGATGAATTTGTCAACGATGACACCAGCATGACCTCCCTGTATCCAAAA
 AGAAGAAGAGAAGGAAGGGCAGTGGCAGTGAACAGGAAGGCGAAGAAGAGGAAGTGGAGAGAGGAAGAA
 GAAGAGGAGGAGAAGACCTCCAAGGGGAGAAGAGGGATCTGAGGAGGAGGAGACAGAAAATGGCCCAAA
 CCAAAGAAGCGCCGCCACCGAGAGCAGAGAAAAGAAGGCTCCAAGCCAGAACGCCTGCCTCCTTCAA
 TGAAGGAAAAAATAAAATCCAAAGCCATTATATCATCAAGTGATGATTCTTCAGATGAGGATAAACTGAA
 AATTGCTGATGAAGGACATCCCAGGAATAGCAACAGCGATTCTGATGACGACGAGAGGCCCAACGACGC
 GCCTCATCTGAGAGCGACTCAGATGACAACCAGAACAAGTCTGGCAGCGAGGCAGGCAGCCCTCGGAGGT
 CGGGTAGACAGGAGTCCGATGAGGATTCGACAGTGACCAGCCGTCCAGAAGAGAAGGCCCTCCGGCTC
 TGAGCAGTCGGACAATGAGTCTGTGCACTCAGGGAGAAGCCCTCCGGAGCTTCTGAGAACGAGAACGAT
 TCTCGCCCGGCTTCTCCAAGTGCAGAAATCGGACCAGAAATCAGAGCAGGGCTCTGACAACGAGGGCTCTG
 GCCAAGGCTCTGGAAATGAATCAGAACCAGAGGGCTCAAACAACGAGGCCTCAGACCAGGCTCAGAACA
 TGGGTCAGATGATAGCGACTAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_009431
- Insert Size:** 3522 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).

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: [NM_009431.2](#), [NP_033457.2](#)

RefSeq Size: 4317 bp

RefSeq ORF: 3522 bp

Locus ID: 22083

UniProt ID: [Q62018](#)

Cytogenetics: 7 57.98 cM

Gene Summary: Component of the PAF1 complex (PAF1C) which has multiple functions during transcription by RNA polymerase II and is implicated in regulation of development and maintenance of embryonic stem cell pluripotency. PAF1C associates with RNA polymerase II through interaction with POLR2A CTD non-phosphorylated and 'Ser-2'- and 'Ser-5'-phosphorylated forms and is involved in transcriptional elongation, acting both independently and synergistically with TCEA1 and in cooperation with the DSIF complex and HTATSF1. PAF1C is required for transcription of Hox and Wnt target genes. PAF1C is involved in hematopoiesis and stimulates transcriptional activity of KMT2A/MLL1. PAF1C is involved in histone modifications such as ubiquitination of histone H2B and methylation on histone H3 'Lys-4' (H3K4me3). PAF1C recruits the RNF20/40 E3 ubiquitin-protein ligase complex and the E2 enzyme UBE2A or UBE2B to chromatin which mediate monoubiquitination of 'Lys-120' of histone H2B (H2BK120ub1); UB2A/B-mediated H2B ubiquitination is proposed to be coupled to transcription. PAF1C is involved in mRNA 3' end formation probably through association with cleavage and poly(A) factors. Required for mono- and trimethylation on histone H3 'Lys-4' (H3K4me3) and dimethylation on histone H3 'Lys-79' (H3K4me3). Required for Hox gene transcription (By similarity). Required for the trimethylation of histone H3 'Lys-4' (H3K4me3) on genes involved in stem cell pluripotency; this function is synergistic with CXXC1 indicative for an involvement of the SET1 complex. Involved in transcriptional regulation of IL6-responsive genes and in JAK-STAT pathway; may regulate DNA-association of STAT3. [UniProtKB/Swiss-Prot Function]