

## Product datasheet for **SC324590**

### CTCF (NM\_006565) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CTCF (NM_006565) Human Untagged Clone
Tag:	Tag Free
Symbol:	CTCF
Synonyms:	CFAP108; FAP108; MRD21
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_006565.2  
 GTGGAGCGATTAACCGTGCGCGGAGCTGCTTCTTTGGCGGCAGCGGCGGCGCGGTGGC  
 CGGTGCGGACGCGCGGAGCTCGCCGGAGACGCCGGGTGGCCGGAGCCGTGGAGCGGCGGC  
 GGAGCGGCGCCCGGGGGTGTGGCGGAGAATGATTACGGACCTGAAGCCAAAGAAC  
 AAGATGCGCTAGTGGACAGATTGCTGACCAGGGCTTGAGAGCTGGTTCTATTTCCCT  
 CCTCAAAGTACTTTGCAGCCACGGAGAGGCAGGGGAAATGGAAGGTGATGCAGTCGAAG  
 CCATTGTGGAGGAGTCCGAAACTTTTATAAAGGAAAGGAGAGAAAGACTTACCAGAGAC  
 GCCGGGAAGGGGCCAGGAAGAAGATGCCTGCCACTTACCCAGAACAGACGGATGGGG  
 GTGAGGTGGTCCAGGATGTCAACAGCAGTGTACAGATGGTGTGATGGAACAGCTGGACC  
 CCACCTTCTTCAGATGAAGACTGAAGTAATGGAGGACAGTGGCTCCAGAAGCAGAGG  
 CTGCTGTGGACGATACCCAGATTATAACTTTACAGTTGTAATATGGAGGAACAGCCCA  
 TAAACATAGGAGAACTTACAGTTGTTCAAGTACCTGTTCTGTGACTGTACCTGTTGCTA  
 CCACTTACAGTAGAAGAACTTACAGGGGCTTATGAAAATGAAGTGTCTAAAGAGGGCCTTG  
 CGGAAAGTGAACCCATGATATGCCACACCTACCTTTGCCTGAAGGGTTTCAGGTGGTTA  
 AAGTGGGGCCAAATGGAGAGGTGGAGACACTAGAACAAGGGAACTTCCACCCAGGAAG  
 ATCCTAGTTGGCAAAAAGACCCAGACTATCAGCCACCAGCAAAAAAACAAGAAAACCA  
 AAAAGAGCAAACGCGTTATACAGAGGAGGGCAAAGATGTAGATGTGTCTGTCTACGATT  
 TTGAGGAAGAAGCAGCAGGAGGGTCTGCTATCAGAGGTTAATGCAGAGAAAGTGGTTGGTA  
 ATATGAGCCTCCAAGCCAACAAAAATTAAGAAAGAGGTGTAAGAAAGACATCCAGT  
 GTGAGCTTTGCAGTTACAGTGTCCACGCGTTCAAATTTGGATCGTCACATGAAAAGCC  
 ACACTGATGAGAGACCACACAAGTGCCATCTCTGTGGCAGGGCATTACAGAACAGTCAACC  
 TCCTGAGGAATCACCTTAACACACACACAGGTAAGTACTCGTCTCACAAAGTGGCCAGACTGCG  
 ACATGGCCTTTGTGACCAGTGGAGAATTGGTTCGGCATCGTCGTTACAAACACACCCACG  
 AGAAGCCATTCAAGTGTCCATGTGCGATTACGCCAGTGTAGAAGTCAGCAAATTAAC  
 GTCACATTCGCTCTCATACTGGAGAGCGTCCGTTTCAGTGCAGTTTGTGCAGTTATGCCA  
 GCAGGGACACATAACAAGCTGAAAAGGCACATGAGAACCATTACAGGGGAAAAGCCTTATG  
 AATGTTATATTTGTCATGCTCGGTTTACCCAAAGTGGTACCATGAAGATGCACATTTTAC



[View online »](#)

```

AGAAGCACACAGAAAATGTGGCCAAATTTCACTGTCCCCACTGTGACACAGTCATAGCCC
GAAAAAGTGATTTGGGTGTCCACTTGCGAAAGCAGCATTCTATATTGAGCAAGGCAAGA
AATGCCGTTACTGTGATGCTGTGTTTCATGAGCGCTATGCCCTCATCCAGCATCAGAAGT
CACACAAGAAATGAGAAGCGCTTTAAGTGTGACCAGTGTGATTACGCTTGTAGACAGGAGA
GGCACATGATCATGCACAAGCGCACCCACACCGGGGAGAAGCCTTACGCCTGCAGCCACT
GCGATAAGACCTTCCGCCAGAAGCAGCTTCTCGACATGCACCTCAAGCGTATCACGACC
CCAACCTTCGTCCCTGCGGCTTTTGTCTGTTCTAAGTGTGGGAAAACATTTACACGTCGGA
ATACCATGGCAAGACATGCTGATAATTGTGCTGGCCAGATGGCGTAGAGGGGGAAAATG
GAGGAGAAAACGAAGAAGAGTAAACGTGGAAGAAAAGAAAAGATGCGCTCTAAGAAAAGAG
ATTCTCTGACAGTGA AAAATGCTGAACCAGATCTGGACGACAATGAGGATGAGGAGGAGC
CTGCCGTAGAAAATTGAACCTGAGCCAGAGCCTCAGCCTGTGACCCAGCCCCACCACCCG
CCAAGAAGCGGAGAGGACGACCCCTGGCAGAACCAACCAGCCAAAACAGAACCGACCAA
CAGCTATCATTACAGTTGAAGACCAGAATACAGGTGCAATTGAGAACATTATAGTTGAAG
TAAAAAAGAGCCAGATGCTGAGCCCGCAGAGGGAGAGGAAGAGGAGGCCAGCCAGCTG
CCACAGATGCCCCCAACGGAGACCTCACGCCCGAGATGATCCTCAGCATGATGGACCGGT
GATGGCGGAGCCTTGTGCGTCGCCAGGACTTCTCTGGGCTGTGTTAAACGGCCCGCATC
TTAATTTTTCTCCCTTCTTTCTTTTTTTGGCTTTGGGAAAAGCATCATTTTACCAAACAT
ACCGAGAACGAAAACCTCAAGGATGATGTTAGAAAAAATGTGATTTAACTAGA AACTTGC
TGTCTGATGTTAGCAAATCATGGAATGTTCTGAGTCCCTGAGGGTTTACTGTGAAGTGCT
GAGGACAGTGTGACAACTAACTCGTTTTCTAGATGGAAACGGAGACATTGACCCCTCC
CTCCATGTGGTAAACCACTCCAGAATGGCCACCAGGCTTCCCAGAGTTCTATGGTCTTCT
TCCCAAGAGAGTTTTTAATTGTAATGCATACTGGGAAGGACTTAGAGTTTTAACTGT
TTTTTGCTTTTGGCTTTTCCCTGACTCCCTTTGCTTGGAGTCAGCTGCACACCAGTAT
GGCATGCTACGATCAGGTTCTGTCTGAAAGCTTTGCCTTTTCTTGGCAAAGTTTCTGG
TATGGTCAAGCTTGTAAATAACTTTTTTACATTTTAATCTTTTCCATTAAATAAGAGGT
TGAAAAGAAGTGCAAGTGAAGAAAACCCAGCATTTTAATTACTTGCAAATTAAGTTACCA
CAGACTCTGTAGTGTGTAATGTTGACAAGGAATTGGATCACAATCATGTAGCAGAATGG
CACCCAGACCACTGCCACCAGTGACGGACATGCACGTGGCAGATCATGATTTCCAGCCC
ACGGAGCCAGCATTTGAACCTTGTATAATTAACTTTCAGTTATGATTTCCCATCGACATT
TTCTTTGCCCTGTTGTAGCTGATTGTTGTGTTTTATAAATCTTCTGTTAAGGCAGAAGG
GTGATTATGAGTGGTTCACAGCAGCCCTTATAAGCTGGGCCAGAAAATTTCACTAGGTCA
GTAATTTAAACCTTGATCTTCAAAAAAAAAAAAAAAAAAAAA

```

- Restriction Sites:** Sgfl-XhoI
- ACCN:** NM\_006565
- 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).
- OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
- 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\\_006565.2](#), [NP\\_006556.1](#)

**RefSeq Size:** 3797 bp

**RefSeq ORF:** 2184 bp

**Locus ID:** 10664

**UniProt ID:** [P49711](#)

**Cytogenetics:** 16q22.1

**Domains:** zf-C2H2

**Protein Families:** Transcription Factors

**Gene Summary:** This gene is a member of the BORIS + CTCF gene family and encodes a transcriptional regulator protein with 11 highly conserved zinc finger (ZF) domains. This nuclear protein is able to use different combinations of the ZF domains to bind different DNA target sequences and proteins. Depending upon the context of the site, the protein can bind a histone acetyltransferase (HAT)-containing complex and function as a transcriptional activator or bind a histone deacetylase (HDAC)-containing complex and function as a transcriptional repressor. If the protein is bound to a transcriptional insulator element, it can block communication between enhancers and upstream promoters, thereby regulating imprinted expression. Mutations in this gene have been associated with invasive breast cancers, prostate cancers, and Wilms' tumors. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2010]  
Transcript Variant: This variant (1) is the longer transcript and encodes the longer isoform (1).