

## Product datasheet for **TP720882**

### CTCF (NM\_006565) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Human CCCTC-binding factor (zinc finger protein) (CTCF), transcript variant 1
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	Met1-Ile154
Tag:	Tag Free
Predicted MW:	16.9 kDa
Concentration:	lot specific
Purity:	>95% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	Provided lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 150 mM NaCl
Bioactivity:	EMSA reaction positive control (PMID: <a href="https://pubmed.ncbi.nlm.nih.gov/29666371/">29666371</a> )
Endotoxin:	Endotoxin level is < 0.1 ng/µg of protein (< 1 EU/µg)
Reconstitution Method:	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. Dissolve the lyophilized protein in ddH <sub>2</sub> O. It is not recommended to reconstitute a concentration less than 100 µg/ml. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Storage:	Store at -80°C.
Stability:	Stable for at least 6 months from date of receipt under proper storage and handling conditions.
RefSeq:	<a href="https://www.ncbi.nlm.nih.gov/RefSeq/record/NP_006556">NP_006556</a>
Locus ID:	10664
UniProt ID:	<a href="https://www.uniprot.org/uniprot/P49711">P49711</a>
RefSeq Size:	3946
Cytogenetics:	16q22.1
RefSeq ORF:	2181
Synonyms:	CFAP108; FAP108; MRD21



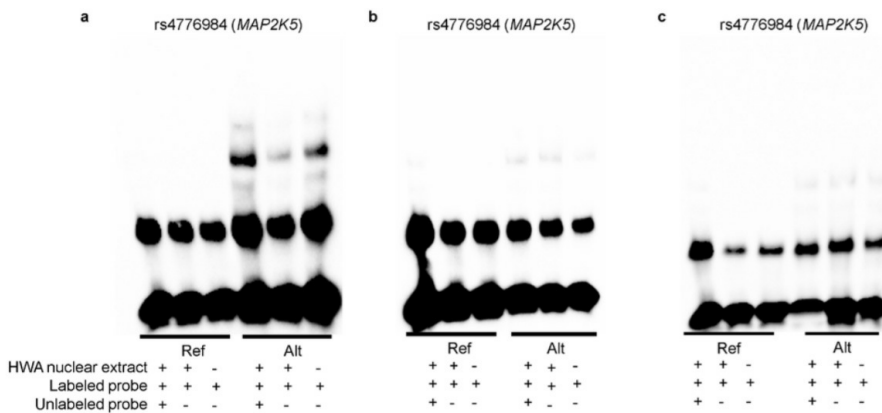
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**Summary:**

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]

**Protein Families:**

Transcription Factors

**Product images:**


Three independent electrophoretic mobility shift assay experiments indicate no specific binding of CTCF at MAP2K5 cis-eQTL SNP rs4776984. Biotinylated (labeled probe) 31-bp oligonucleotide complexes with +/-15 bp flanking the reference or alternate allele for variant rs4776984 were incubated with CTCF protein (OriGene TP720882) and/or human white adipocyte (HWA) nuclear protein and resolved on a 6% polyacrylamide gel. Competitor assays were performed by incubating the reaction with 100X excess of unlabeled (no biotin) oligonucleotide complexes with the identical sequences. Figure cited from Nat Commun, PMID: 29666371