

## Anti-CTCF Antibody

Catalog Number: M00132-2

### About CTCF

Chromatin binding factor that binds to DNA sequence specific sites. Involved in transcriptional regulation by binding to chromatin insulators and preventing interaction between promoter and nearby enhancers and silencers. Acts as transcriptional repressor binding to promoters of vertebrate MYC gene and BAG1 gene. Also binds to the PLK and PIM1 promoters. Acts as a transcriptional activator of APP. Regulates APOA1/C3/A4/A5 gene cluster and controls MHC class II gene expression. Plays an essential role in oocyte and preimplantation embryo development by activating or repressing transcription. Seems to act as tumor suppressor. Plays a critical role in the epigenetic regulation. Participates in the allele-specific gene expression at the imprinted IGF2/H19 gene locus. On the maternal allele, binding within the H19 imprinting control region (ICR) mediates maternally inherited higher-order chromatin conformation to restrict enhancer access to IGF2. Plays a critical role in gene silencing over considerable distances in the genome. Preferentially interacts with unmethylated DNA, preventing spreading of CpG methylation and maintaining methylation-free zones. Inversely, binding to target sites is prevented by CpG methylation. Plays an important role in chromatin remodeling. Can dimerize when it is bound to different DNA sequences, mediating long-range chromatin looping. Mediates interchromosomal association between IGF2/H19 and WSB1/NF1 and may direct distant DNA segments to a common transcription factory. Causes local loss of histone acetylation and gain of histone methylation in the beta-globin locus, without affecting transcription. When bound to chromatin, it provides an anchor point for nucleosomes positioning. Seems to be essential for homologous X-chromosome pairing. May participate with Tsix in establishing a regulatable epigenetic switch for X chromosome inactivation. May play a role in preventing the propagation of stable methylation at the escape genes from X-inactivation. Involved in sister chromatid cohesion. Associates with both centromeres and chromosomal arms during metaphase and required for cohesin localization to CTCF sites. Regulates asynchronous replication of IGF2/H19.

### Overview

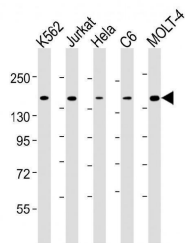
Product Name	Anti-CTCF Antibody
Reactive Species	Human, Rat
Description	Boster Bio Anti-CTCF Antibody (Catalog # M00132-2). Tested in WB application(s). This antibody reacts with Human, Rat.
Application	WB
Clonality	Monoclonal 1723CT382.14.9
Formulation	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Storage Instructions	Maintain refrigerated at 2-8°C for up to 2 weeks. For long-term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.
Host	Mouse
Uniprot ID	P49711

### Technical Details

Immunogen	This CTCF antibody is generated from a mouse immunized with a recombinant protein between
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	445-727 amino acids from human CTCF.
Predicted Reactive Species	Human
Isotype	IgG1,k
Purification	This antibody is purified through a protein G column, followed by dialysis against PBS.
Suggested Dilutions	WB: 1:4000

## Anti-CTCF Antibody (M00132-2) Images



All lanes : Anti-CTCF Antibody at 1:4000 dilution  
Lane 1: K562 whole cell lysate  
Lane 2: Jurkat whole cell lysate  
Lane 3: HeLa whole cell lysate  
Lane 4: C6 whole cell lysate  
Lane 5: MOLT-4 whole cell lysate  
Lysates/proteins at 20  $\mu$ g per lane.  
Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 83 kDa  
Blocking/Dilution buffer: 5% NFDM/TBST.

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### Anti-CTCF Antibody

For Research Use Only. Not for use in diagnostic procedures.