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CTCF Rabbit mAb

Catalog No.: A19588 Recombinant 2 Publications

Basic Information

Observed MW
140kDa

Calculated MW
83kDa

Category
Primary antibody

Applications
WB,IF/ICC,IP,ELISA,ChIP,ChIP-seq,CUT&Tag

Cross-Reactivity
Human, Mouse, Rat

CloneNo number
ARC0067

Background

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.

Recommended Dilutions

WB	1:1000 - 1:4000
IF/ICC	1:200 - 1:800
IP	0.5μg-4μg antibody for 200μg-400μg extracts of whole cells
ELISA	Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.
ChIP	3μg antibody for 10μg-15μg of Chromatin
ChIP-seq	1:50 - 1:100
CUT&Tag	10^5 cells /2 μg

Immunogen Information

Gene ID
10664

Swiss Prot
P49711

Immunogen
A synthetic peptide corresponding to a sequence within amino acids 628-727 of human CTCF (P49711).

Synonyms
MRD21; FAP108; CFAP108; CTCF

Product Information

Source
Rabbit

Isotype
IgG

Purification
Affinity purification

Storage
Store at -20℃. Avoid freeze / thaw cycles.
Buffer: PBS with 0.02% sodium azide,0.05% BSA,50% glycerol,pH7.3.

Contact

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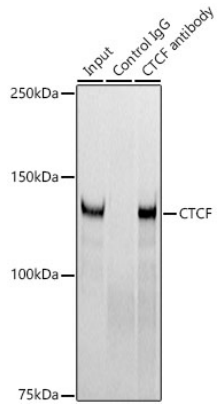
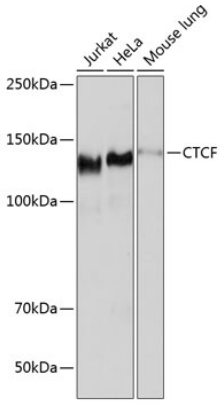
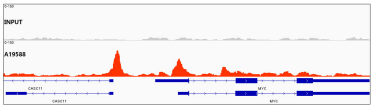
Validation Data



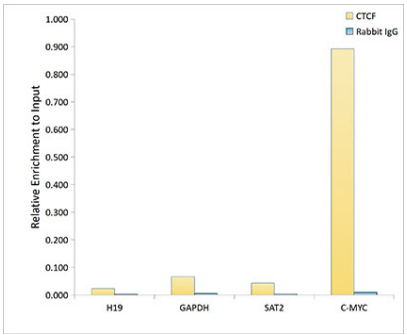
Immunoprecipitation analysis of 300 µg extracts of 293T cells using 3 µg CTCF antibody (A19588). Western blot was performed from the immunoprecipitate using CTCF antibody (A19588) at a dilution of 1:1000.



Western blot analysis of various lysates using CTCF Rabbit mAb (A19588) at 1:1000 dilution.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 30s.

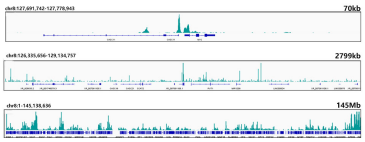


Chromatin immunoprecipitations were performed with cross-linked chromatin from 293T cells and CTCF Rabbit mAb (A19588). The ChIP sequencing results indicate the enrichment pattern of CTCF in selected genomic region and representative gene loci (MYC), as shown in figure.

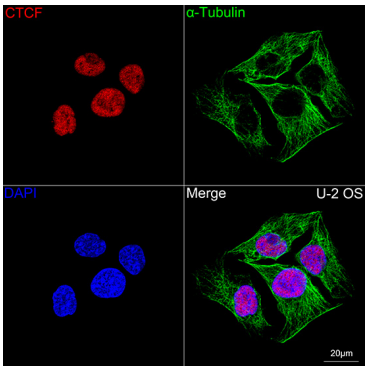


Chromatin immunoprecipitation analysis of extracts of 293T cells, using CTCF antibody (A19588) and rabbit IgG.The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.

Validation Data



CUT&Tag was performed using the CUT&Tag Assay Kit (pAG-Tn5) for Illumina (RK20265) from 10^5 K562 cells with 2 ug CTCF Rabbit mAb along with a Goat Anti-Rabbit IgG(H+L). The CUT&Tag results indicate the enrichment pattern of CTCF in representative gene loci (MYC), as shown in figure.



Confocal imaging of U-2 OS cells using CTCF Rabbit mAb (A19588, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.