
Product Name: KD-Validated CTCF Recombinant Rabbit Monoclonal Antibody**Catalog #: KVA01591**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 82.8kDa

Antigen Information

Gene Name	CTCF CTCF; CCCTC-Binding Factor; CFAP108; FAP108; CCCTC-Binding Factor (Zinc Finger Protein);
Alternative Names	11 Zinc Finger Transcriptional Repressor; Transcriptional Repressor CTCF; 11-Zinc Finger Protein; CTCFL Paralog; MRD21
Gene ID	10664.0
SwissProt ID	P49711
Immunogen	A synthesized peptide derived from human CTCF

Background

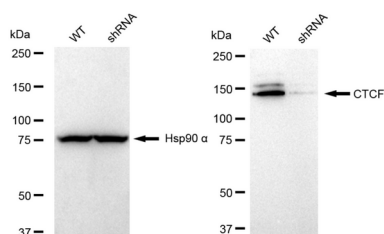
This gene is a member of the BORIS + CTCF gene family and encodes a transcriptional regulator protein with 11 highly conserved zinc finger (ZF) domains. This nuclear protein is able to use different combinations of the ZF domains to bind

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. [provided by RefSeq, Jul 2010]

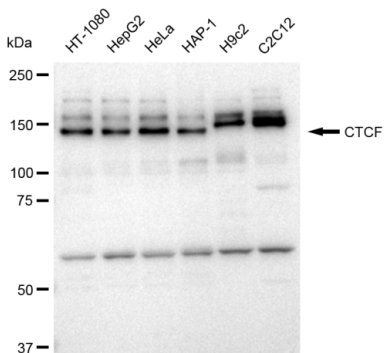
Research Area

Epigenetics and Nuclear Signaling

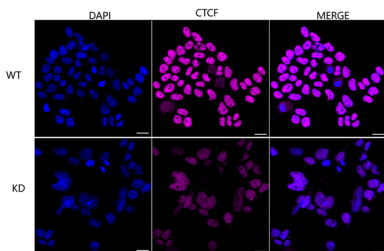
Image Data



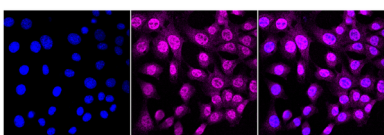
Western blotting analysis using CTCF antibody (KVA01591). CTCF expression in wild type (WT) and CTCF shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with CTCF antibody (KVA01591, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



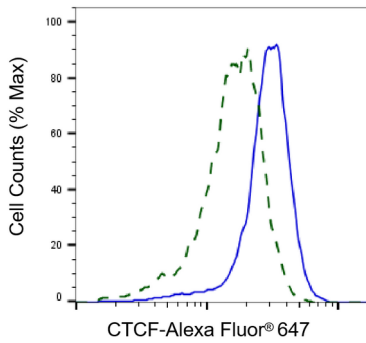
Western blotting analysis using CTCF antibody (KVA01591). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with CTCF antibody (KVA01591, 1:5,000) and HRP-conjugated goat anti rabbit secondary antibody (APS0635, 1:10,000) respectively.



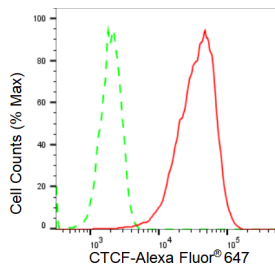
Immunocytochemical staining of HeLa cells using CTCF antibody (KVA01591, 1:1,000), Top panel: wild-type (WT); Bottom panel: CTCF shRNA knockdown (KD). Nuclei were stained blue with DAPI; CTCF was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



Immunocytochemical staining of C2C12 cells with CTCF antibody (KVA01591, 1:1,000). Nuclei were stained blue with DAPI; CTCF was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser intensity and smart gain: Medium. Scale bar: 20 µm.



Validation of CTCF knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with CTCF antibody (KVA01591, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of CTCF expression in C2C12 cells using CTCF antibody (KVA01591, 1:2,000). Green, isotype control; red, CTCF.