

Product datasheet

Anti-CTCF antibody [mAbcam 37477] ab37477

4 References [画像数 3](#)

製品の概要

製品名	Anti-CTCF antibody [mAbcam 37477]
製品の詳細	Mouse monoclonal [mAbcam 37477] to CTCF
由来種	Mouse
特異性	This antibody has previously been successfully used in western blot after immunoprecipitation from mouse NIH3T3 lysates. Please see Yao H et al. Genes Dev 24:2543-55 (2010) PMID: 20966046 for more details.
アプリケーション	適用あり: IP, Flow Cyt, WB, EMSA
種交差性	交差種: Mouse, Human
免疫原	Recombinant fragment derived from the N terminal end of Human CTCF.Immunogen の所有権に関して
ポジティブ・コントロール	This antibody gave a positive signal in MCF7 whole cell lysate and HeLa whole cell lysate.
特記事項	This antibody clone is manufactured by Abcam. CTCF is known to migrate by SDS-PAGE at 130 kDa (PMID: 9016583) We can conjugate this antibody to FITC for you (please see ab150242 for details). If you require this antibody in a particular buffer formulation or a particular conjugate for your experiments, please contact orders@abcam.com or you can find further information here .

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.02% Sodium Azide Constituents: PBS, pH 7.4
精製度	IgG fraction
ポリ/モノ	モノクローナル
クローン名	mAbcam 37477
ミエローマ	Sp2/0-Ag14
アイソタイプ	IgG1
軽鎖の種類	kappa

アプリケーション

Our [Abpromise guarantee](#) covers the use of **ab37477** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション	Abreviews	特記事項
IP		Use at an assay dependent concentration.
Flow Cyt		Use 1µg for 10 ⁶ cells. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 100 kDa (predicted molecular weight: 83 kDa).
EMSA		Use at an assay dependent concentration. PubMed: 22210889

ターゲット情報

機能	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 to 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.
組織特異性	Ubiquitous. Absent in primary spermatocytes.
配列類似性	Belongs to the CTCF zinc-finger protein family.

Contains 11 C2H2-type zinc fingers.

ドメイン

The 11 zinc fingers are highly conserved among vertebrates, exhibiting almost identical amino acid sequences. Different subsets or combination of individual zinc fingers gives the ability to CTCF to recognize multiple DNA target sites.

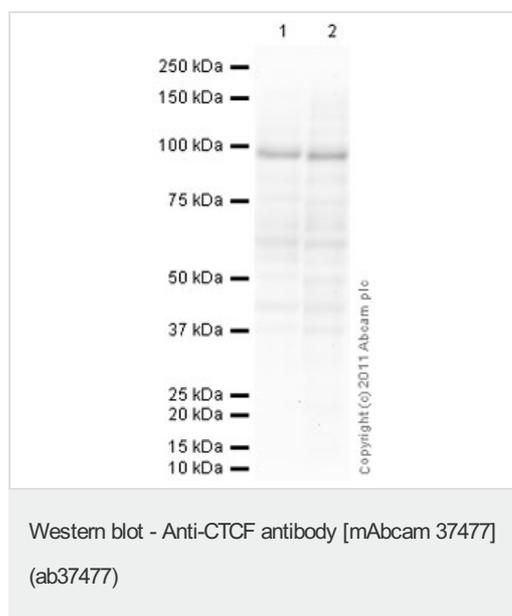
翻訳後修飾

Sumoylated on Lys-74 and Lys-689; sumoylation of CTCF contributes to the repressive function of CTCF on the MYC P2 promoter.

細胞内局在

Nucleus > nucleoplasm. Chromosome. Chromosome > centromere. May translocate to the nucleolus upon cell differentiation. Associates with both centromeres and chromosomal arms during metaphase. Associates with the H19 ICR in mitotic chromosomes. May be preferentially excluded from heterochromatin during interphase.

画像



All lanes : Anti-CTCF antibody [mAbcam 37477] (ab37477) at 5 µg/ml

Lane 1 : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate

Lane 2 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 20 µg per lane.

Secondary

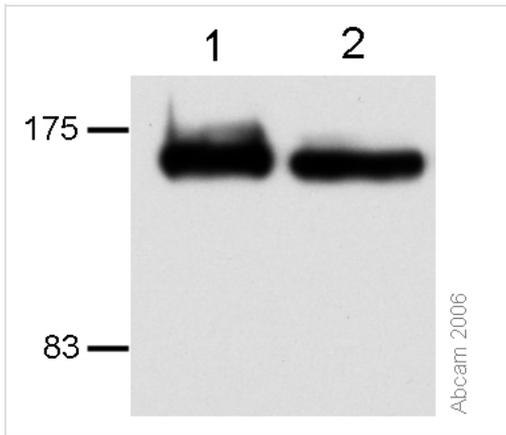
All lanes : Goat Anti-Mouse IgG H&L (HRP) preadsorbed (ab97040) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 83 kDa

Exposure time: 90 seconds



Western blot - Anti-CTCF antibody [mAbcam 37477] (ab37477)

This image is courtesy of Elena Klenova, University of Essex, UK

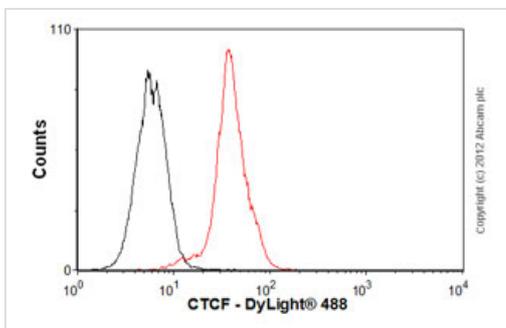
All lanes : Anti-CTCF antibody [mAbcam 37477] (ab37477) at 2 µg/ml

Lane 1 : ZR-75-1 cell extract

Lane 2 : HCT-116 cell extract

Predicted band size: 83 kDa

ab37477 recognises a band at approximately 130 kDa corresponding to CTCF.



Flow Cytometry - Anti-CTCF antibody [mAbcam 37477] (ab37477)

Overlay histogram showing HeLa cells stained with ab37477 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab37477, 1µg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed.

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