


## Product datasheet

### Anti-CTCF antibody [mAbcam 37477] ab37477

[7 References](#) [2 Images](#)

#### Overview

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<b>Product name</b>	Anti-CTCF antibody [mAbcam 37477]
<b>Description</b>	Mouse monoclonal [mAbcam 37477] to CTCF
<b>Host species</b>	Mouse
<b>Specificity</b>	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) <b>PMID: <a href="#">20966046</a></b> for more details.
<b>Tested applications</b>	<b>Suitable for:</b> WB <b>Unsuitable for:</b> Flow Cyt
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse 
<b>Immunogen</b>	Recombinant fragment corresponding to Human CTCF aa 1-300 (N terminal).
<b>Positive control</b>	This antibody gave a positive signal in MCF7 whole cell lysate and HeLa whole cell lysate.
<b>General notes</b>	<p>CTCF is known to migrate by SDS-PAGE at 130 kDa (PMID: 9016583) We can conjugate this antibody to FITC for you (please see <a href="#">ab150242</a> for details).</p> <p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact <a href="mailto:orders@abcam.com">orders@abcam.com</a>.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.40

	Preservative: 0.02% Sodium azide
	Constituent: PBS
<b>Purity</b>	IgG fraction
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	mAbcam 37477
<b>Myeloma</b>	Sp2/0-Ag14
<b>Isotype</b>	IgG1
<b>Light chain type</b>	kappa

## Applications

**The Abpromise guarantee** 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.

Application	Abreviews	Notes
<b>WB</b>		Use a concentration of 1 µg/ml. Detects a band of approximately 100 kDa (predicted molecular weight: 83 kDa).

**Application notes** Is unsuitable for Flow Cyt.

## Target

**Function** 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 a 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.

**Tissue specificity** Ubiquitous. Absent in primary spermatocytes.

## Sequence similarities

Belongs to the CTCF zinc-finger protein family.  
Contains 11 C2H2-type zinc fingers.

## Domain

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.

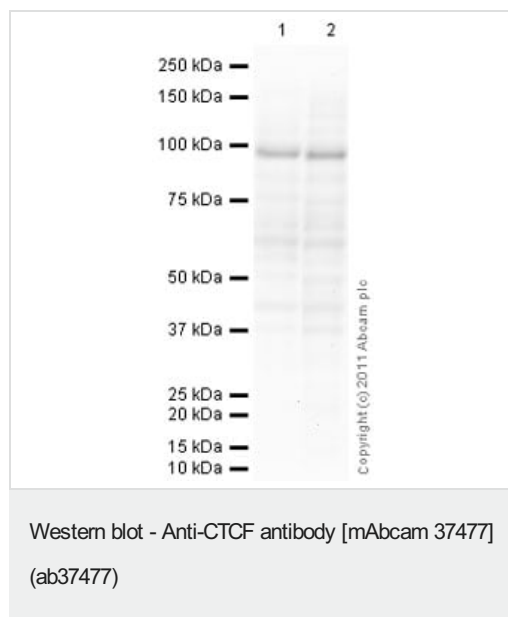
## Post-translational modifications

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

## Cellular localization

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.

## Images



**All lanes :** Anti-CTCF antibody [mAbcam 37477] (ab37477) at 5  $\mu$ g/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  $\mu$ g per lane.

### Secondary

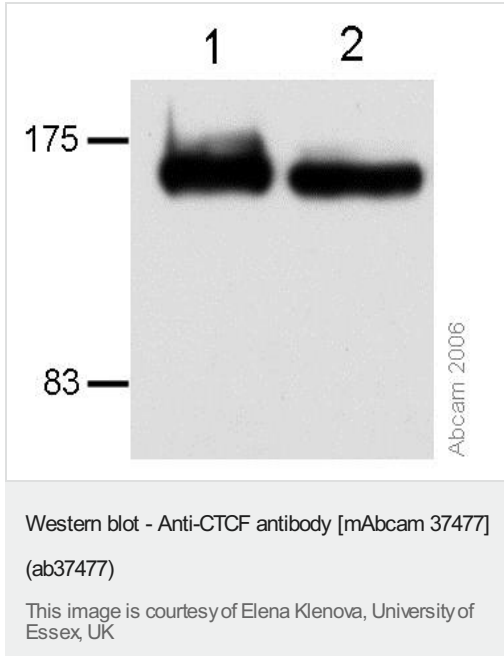
**All lanes :** Goat Anti-Mouse IgG H&L (HRP) preadsorbed ([ab97040](#)) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 83 kDa

**Exposure time:** 90 seconds



**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.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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