

# Recombinant Human CTCF protein

**Cat. No.** CTCF-15H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| <b>Product Overview</b> | Recombinant Human CTCF, transcript variant 1, was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Description</b>      | <p>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.</p> |
| <b>Form</b>             | Lyophilized from a 0.2 M filtered solution of PBS, pH 7.4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Molecular Mass</b>   | 16.9 kD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>AA Sequence</b>      | MEGDAVEAIVEESETFIK GKERKTYQRRREGGQEEDACHLPQNQTDGGGEVVQDVN<br>SSVQMVMMEQLDPTLLQMKTEVMEGTVAPEAEAAVDDTQIITLQVVMEEQPINIGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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LQLVQVPVPVTVPVATTSSVEELQGAYENEVSKEGLAESEPMI

**Endotoxin** Endotoxin level is <0.1 ng/g of protein (<1EU/g).

**Purity** >95% as determined by SDS-PAGE and Coomassie blue staining

**Notes** Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 µg/ml. Dissolve the lyophilized protein in 1X PBS. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

## GENE INFORMATION

**Gene Name** CTCF CCCTC-binding factor (zinc finger protein) [ Homo sapiens ]

**Official Symbol** CTCF

**Synonyms** CTCF; CCCTC-binding factor (zinc finger protein); transcriptional repressor CTCF; 11 zinc finger transcriptional repressor; CTCFL paralog; 11-zinc finger protein;

**Gene ID** 10664

**mRNA Refseq** NM\_001191022

**Protein Refseq** NP\_001177951

**MIM** 604167

**UniProt ID** P49711

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