

# CIR (C-19): sc-9471

## BACKGROUND

Recombination signal binding protein  $J\kappa$  (RBP- $J\kappa$ ), also designated KBF2 or CBF1, is the mammalian homolog of the *Drosophila* suppressor of hairless (Su(H)), a protein involved in the development of the peripheral nervous system. RBP- $J\kappa$  is ubiquitously expressed in mammalian tissues and is involved in the regulation of gene expression. RBP- $J\kappa$  has been shown to directly interact with the intracellular domain of the cell surface receptor Notch1. Proteolytically cleaved Notch1 translocates to the nucleus, where it binds to DNA-bound RBP- $J\kappa$  and activates transcription of target genes. CIR (for CBF1 interacting corepressor) serves as a linker between RBP- $J\kappa$  and the histone deacetylase complex by binding to SAP30 and to histone deacetylase. CIR binding to RBP- $J\kappa$  results in transcriptional repression of Notch 1 target genes.

## REFERENCES

1. Amakawa, R., et al. 1993. Human  $J\kappa$  recombination signal binding protein gene (IGKJRB): comparison with its mouse homologue. *Genomics* 17: 306-315.
2. Oka, C., et al. 1995. Disruption of the mouse RBP- $J\kappa$  gene results in early embryonic death. *Development* 121: 3291-3301.
3. Waltzer, L., et al. 1995. RBP- $J\kappa$  repression activity is mediated by a co-repressor and antagonized by the Epstein-Barr virus transcription factor EBNA2. *Nucleic Acids Res.* 23: 4939-4945.
4. Tamura, K., et al. 1995. Physical interaction between a novel domain of the receptor Notch and the transcription factor RBP- $J\kappa$ /Su(H). *Curr. Biol.* 5: 1416-1423.
5. Hsieh, J.J., et al. 1996. Truncated mammalian Notch1 activates CBF1/RBP- $J\kappa$ -repressed genes by a mechanism resembling that of Epstein-Barr virus EBNA2. *Mol. Cell. Biol.* 16: 952-959.
6. Hsieh, J.J., et al. 1999. CIR, a corepressor linking DNA binding factor CBF1 to the histone deacetylase complex. *Proc. Natl. Acad. Sci. USA* 96: 23-28.

## CHROMOSOMAL LOCATION

Genetic locus: CIR1 (human) mapping to 2q31.1.

## SOURCE

CIR (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CIR of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-9471 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-9471 X, 200  $\mu$ g/0.1 ml.

## APPLICATIONS

CIR (C-19) is recommended for detection of CIR of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CIR siRNA (h): sc-38213, CIR shRNA Plasmid (h): sc-38213-SH and CIR shRNA (h) Lentiviral Particles: sc-38213-V.

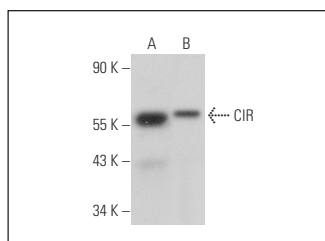
CIR (C-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Positive Controls: K-562 whole cell lysate: sc-2203 or HEK293 whole cell lysate: sc-45136.

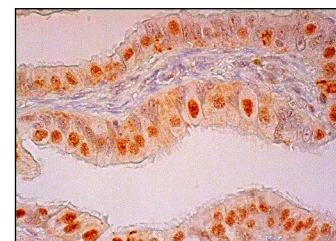
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



CIR (C-19): sc-9471. Western blot analysis of CIR expression in K-562 (A) and HEK293 (B) whole cell lysates.



CIR (C-19): sc-9471. Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing nuclear staining of glandular cells.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.