

CIR (A-20): sc-9470

BACKGROUND

Recombination signal binding protein $\text{J}\kappa$ (RBP- $\text{J}\kappa$), 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- $\text{J}\kappa$ is ubiquitously expressed in mammalian tissues and is involved in the regulation of gene expression. RBP- $\text{J}\kappa$ 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- $\text{J}\kappa$ and activates transcription of target genes. CIR (for CBF1 interacting corepressor) serves as a linker between RBP- $\text{J}\kappa$ and the histone deacetylase complex by binding to SAP30 and to histone deacetylase. CIR binding to RBP- $\text{J}\kappa$ results in transcriptional repression of Notch 1 target genes.

REFERENCES

1. Amakawa, R., et al. 1993. Human $\text{J}\kappa$ 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- $\text{J}\kappa$ gene results in early embryonic death. *Development* 121: 3291-3301.
3. Waltzer, L., et al. 1995. RBP- $\text{J}\kappa$ 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- $\text{J}\kappa$ /Su(H). *Curr. Biol.* 5: 1416-1423.
5. Hsieh, J.J., et al. 1996. Truncated mammalian Notch1 activates CBF1/RBP $\text{J}\kappa$ -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 (A-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CIR of human origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-9470 P, (100 μg 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-9470 X, 200 μg /0.1 ml.

APPLICATIONS

CIR (A-20) 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 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (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.

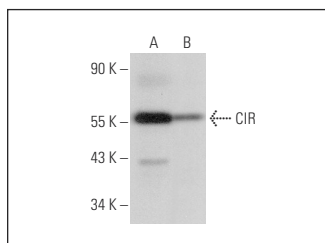
CIR (A-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

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.

DATA



CIR (A-20): sc-9470. Western blot analysis of CIR expression in K-562 (A) and HEK293 (B) whole cell lysates.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.