

RBP-J κ (N-16): sc-55021

BACKGROUND

Recombination signal binding protein J κ (RBP-J κ), 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 κ is ubiquitously expressed in mammalian tissues and is involved in the regulation of gene expression. RBP-J κ has been shown to directly interact with the intercellular domain of the cell surface receptor Notch 1. Proteolytically cleaved Notch 1 translocates to the nucleus, where it binds DNA-bound RBP-J κ and activates transcription of target genes. These genes include NF κ B p52 and the Epstein-Barr virus (EBV) protein EBNA-2, both of which contain RBP-J κ binding sequences within their promoter regions.

REFERENCES

1. Amakawa, R., et al. 1993. Human J κ recombination signal binding protein gene (IGKJRB): comparison with its mouse homologue. *Genomics* 17: 306-315.
2. Waltzer, L., et al. 1994. The human J κ recombination signal sequence binding protein (RBP-J κ) targets the Epstein-Barr virus EBNA-2 protein to its DNA responsive elements. *EMBO J.* 13: 5633-5638.
3. Oka, C., et al. 1995. Disruption of the mouse RBP-J κ gene results in early embryonic death. *Development* 121: 3291-3301.
4. Waltzer, L., et al. 1995. RBP-J κ repression activity is mediated by a co-repressor and antagonized by the Epstein-Barr virus transcription factor EBNA-2. *Nucleic Acids Res.* 23: 4939-4945.
5. Tamura, K., et al. 1995. Physical interaction between a novel domain of the receptor Notch and the transcription factor RBP-J κ /Su(H). *Curr. Biol.* 5: 1416-1423.
6. Hsieh, J.J., et al. 1996. Truncated mammalian Notch 1 activates CBF1/RBP-J κ -repressed genes by a mechanism resembling that of Epstein-Barr virus EBNA-2. *Mol. Cell. Biol.* 16: 952-959.
7. Oswald, F., et al. 1998. NF κ B2 is a putative target gene of activated Notch 1 via RBP-J κ . *Mol. Cell. Biol.* 18: 2077-2088.

CHROMOSOMAL LOCATION

Genetic locus: RBPJ (human) mapping to 4p15.2.

SOURCE

RBP-J κ (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of RBP-J κ of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-55021 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

RBP-J κ (N-16) is recommended for detection of RBP-J κ of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RBP-J κ (N-16) is also recommended for detection of RBP-J κ in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for RBP-J κ siRNA (h): sc-38214, RBP-J κ shRNA Plasmid (h): sc-38214-SH and RBP-J κ shRNA (h) Lentiviral Particles: sc-38214-V.

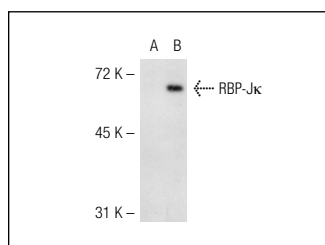
Molecular Weight of RBP-J κ : 56 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, Ramos nuclear extract: sc-2153 or BJAB nuclear extract: sc-2145.

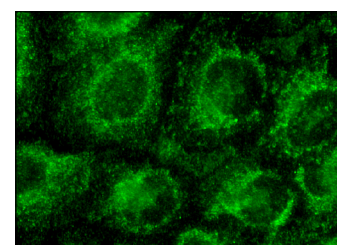
RECOMMENDED SECONDARY REAGENTS

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).

DATA



RBP-J κ (N-16): sc-55021. Western blot analysis of RBP-J κ expression in non-transfected: sc-117752 (A) and mouse RBP-J κ transfected: sc-123024 (B) 293T whole cell lysates.



RBP-J κ (N-16): sc-55021. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

STORAGE

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



Try **RBP-J κ (E-7): sc-271128**, our highly recommended monoclonal alternative to RBP-J κ (N-16). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **RBP-J κ (E-7): sc-271128**.