

RBP-J κ (D-20): sc-8213

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 Notch1. Proteolytically cleaved Notch1 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 EBNA2, both of which contain RBP-J κ binding sequences within their promoter regions.

CHROMOSOMAL LOCATION

Genetic locus: RBPJ (human) mapping to 4p15.2; Rbpj (mouse) mapping to 5 C1.

SOURCE

RBP-J κ (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at an internal region 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-8213 P, (100 μ 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-8213 X, 200 μ g/0.1 ml.

STORAGE

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

APPLICATIONS

RBP-J κ (D-20) is recommended for detection of RBP-J κ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

RBP-J κ (D-20) is also recommended for detection of RBP-J κ in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RBP-J κ siRNA (h): sc-38214, RBP-J κ siRNA (m): sc-38215, RBP-J κ shRNA Plasmid (h): sc-38214-SH, RBP-J κ shRNA Plasmid (m): sc-38215-SH, RBP-J κ shRNA (h) Lentiviral Particles: sc-38214-V and RBP-J κ shRNA (m) Lentiviral Particles: sc-38215-V.

RBP-J κ (D-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of RBP-J κ : 56 kDa.

Positive Controls: NIH/3T3 nuclear extract: sc-2138, HeLa nuclear extract: sc-2120 or Ramos nuclear extract: sc-2153.

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.

SELECT PRODUCT CITATIONS

1. Lim, J.W., et al. 2004. The Ku antigen-recombination signal-binding protein J κ complex binds to the nuclear factor- κ B p50 promoter and acts as a positive regulator of p50 expression in human gastric cancer cells. *J. Biol. Chem.* 279: 231-237.
2. Shawber, C.J., et al. 2007. Notch alters VEGF responsiveness in human and murine endothelial cells by direct regulation of VEGFR-3 expression. *J. Clin. Invest.* 117: 3369-3382.
3. Masui, T., et al. 2007. Early pancreatic development requires the vertebrate Suppressor of Hairless (RBPJ) in the PTF1 bHLH complex. *Genes Dev.* 21: 2629-2643.
4. Kathrein, K.L., et al. 2008. Ikaros directly represses the notch target gene Hes1 in a leukemia T cell line: implications for CD4 regulation. *J. Biol. Chem.* 283: 10476-10484.
5. Raafat, A., et al. 2009. RBP-J conditional knockout reveals distinct functions of Notch4/Int3 in mammary gland development and tumorigenesis. *Oncogene* 28: 219-230.
6. Jezierski, A., et al. 2010. Probing stemness and neural commitment in human amniotic fluid cells. *Stem Cell Rev.* 6: 199-214.
7. Hao, L., et al. 2010. Notch-1 activates estrogen receptor- α -dependent transcription via IKK α in breast cancer cells. *Oncogene* 29: 201-213.
8. Cooper, C.D., et al. 2011. Identification and characterization of peripheral T-cell lymphoma-associated SEREX antigens. *PLoS ONE* 6: e23916.

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.


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Try **RBP-J κ (E-7): sc-271128**, our highly recommended monoclonal alternative to RBP-J κ (D-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **RBP-J κ (E-7): sc-271128**.