

RBP-J κ (m): 293T Lysate: sc-123024

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., Jing, W., Ozawa, K., Matsunami, N., Hamaguchi, Y., Matsuda, F., Kawaichi, M. and Honjo, T. 1993. Human J κ recombination signal binding protein gene (IGKJRB): comparison with its mouse homologue. *Genomics* 17: 306-315.
2. Waltzer, L., Logeat, F., Brou, C., Israel, A., Sergeant, A. and Manet, E. 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. Waltzer, L., Bourillot, P.Y., Sergeant, A. and Manet, E. 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.
4. Tamura, K., Taniguchi, Y., Minoguchi, S., Sakai, T., Tun, T., Furukawa, T. and Honjo, T. 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.
5. Oka, C., Nakano, T., Wakeham, A., de la Pompa, J.L., Mori, C., Sakai, T., Okazaki, S., Kawaichi, M., Shiota, K., Mak, T.W. and Honjo, T. 1995. Disruption of the mouse RBP-J κ gene results in early embryonic death. *Development* 121: 3291-3301.
6. Hsieh, J.J., Henkel, T., Salmon, P., Robey, E., Peterson, M.G. and Hayward, S.D. 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., Liptay, S., Adler, G. and Schmid, R.M. 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 (mouse) mapping to 5 C1.

PRODUCT

RBP-J κ (m): 293T Lysate represents a lysate of mouse RBP-J κ transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

RBP-J κ (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive RBP-J κ antibodies. Recommended use: 10-20 μ l per lane.

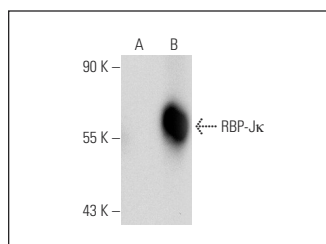
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RBP-J κ (E-7): sc-271128 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse RBP-J κ expression in RBP-J κ transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



RBP-J κ (E-7): sc-271128. 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.

RESEARCH USE

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

PROTOCOLS

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