

RBP-J κ (h3): 293T Lysate: sc-177851

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. 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.
4. 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.
5. 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.
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 (human) mapping to 4p15.2.

PRODUCT

RBP-J κ (h3): 293T Lysate represents a lysate of human RBP-J κ transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

RBP-J κ (h3): 293T Lysate is suitable as a Western Blotting positive control for human 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.

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.

PROTOCOLS

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