SANTA CRUZ BIOTECHNOLOGY, INC.

TBK1 (h): 293T Lysate: sc-159010

BACKGROUND

The transcription factor NFκB is retained in the cytoplasm in an inactive form by the inhibitory protein IκB. Activation of NFκB requires that IκB be phosphorylated on specific serine residues, which results in targeted degradation of IκB. IκB kinase α (IKKα), previously designated CHUK, interacts with IκB-α and specifically phosphorylates IκB-α on the sites that trigger its degradation, Serines 32 and 36. The functional IKK complex contains three subunits, IKKα, IKKβ and IKKγ (also designated NEMO), and each appear to make essential contributions to IκB phosphorylation. TANK binding kinase (TBK1), also designated T2K, is a novel IKK-related kinase that has been identified in murine and human tissues. TBK1 was shown to complex with TRAF2 and TANK in the NFκB activation pathway. TBK1 shares homology with IKKα and IKKβ in the amino-terminal half, which includes the kinase domain.

REFERENCES

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3. Conelly, M.A., et al. 1995. CHUK, a new member of the helix-loop-helix and leucine zipper families of interacting proteins, contains a serine-threonine kinase catalytic domain. Cell. Mol. Biol. Res. 41: 537-549.
4. DiDonato, J.A., et al.1997. A cytokine-responsive IκB kinase that activates the transcription factor NFκB. Nature 388: 548-554.
5. Regnier, C.H., et al. 1997. Identification and characterization of an IκB kinase. Cell 90: 373-383.
7. Yamaoka, S., et al. 1998. Complementation cloning of nemo, a component of the IκB kinase complex essential for NFκB activation. Cell 93: 1231-1240.
8. Pomerantz, J.L., et al. 1999. NFκB activation by a signaling complex containing TRAF2, TANK and TBK1, a novel IKK-related kinase. EMBO J. 18: 6694-6704.

CHROMOSOMAL LOCATION

Genetic locus: TBK1 (human) mapping to 12q14.2.

PRODUCT

TBK1 (h): 293T Lysate represents a lysate of human TBK1 transfected 293T cells and is provided as 100 µg protein in 200 µl 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.

PROTOCOLS

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

APPLICATIONS

TBK1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive TBK1 antibodies. Recommended use: 10-20 µl per lane.

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

RESEARCH USE

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