



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



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Diagnostik & molekulare Diagnostik



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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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

## BACKGROUND

The transcription factor NF $\kappa$ B is retained in the cytoplasm in an inactive form by the inhibitory protein I $\kappa$ B. Activation of NF $\kappa$ B requires that I $\kappa$ B be phosphorylated on specific serine residues, which results in targeted degradation of I $\kappa$ B. I $\kappa$ B kinase  $\alpha$  (IKK $\alpha$ ), previously designated CHUK, interacts with I $\kappa$ B- $\alpha$  and specifically phosphorylates I $\kappa$ B- $\alpha$  on the sites that trigger its degradation, Serines 32 and 36. The functional IKK complex contains three subunits, IKK $\alpha$ , IKK $\beta$  and IKK $\gamma$  (also designated NEMO), and each appear to make essential contributions to I $\kappa$ B 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 NF $\kappa$ B activation pathway. TBK1 shares homology with IKK $\alpha$  and IKK $\beta$  in the amino-terminal half, which includes the kinase domain.

## REFERENCES

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3. Connelly, 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 I $\kappa$ B kinase that activates the transcription factor NF $\kappa$ B. *Nature* 388: 548-554.
5. Regnier, C.H., et al. 1997. Identification and characterization of an I $\kappa$ B kinase. *Cell* 90: 373-383.
7. Yamaoka, S., et al. 1998. Complementation cloning of nemo, a component of the I $\kappa$ B kinase complex essential for NF $\kappa$ B activation. *Cell* 93: 1231-1240.
8. Pomerantz, J.L., et al. 1999. NF $\kappa$ B 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  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## STORAGE

Store at -20 $^{\circ}$  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](http://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  $\mu$ l 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.