

IKK-i (H-116): sc-10760

BACKGROUND

The transcription factor NF κ B is retained in the cytoplasm in an inactive form by the inhibitory protein I κ B. Activation of NF κ B requires that I κ B be phosphorylated on specific serine residues, which results in targeted degradation of I κ B. I κ B kinase α (IKK α), previously designated CHUK, interacts with I κ B- α and specifically phosphorylates I κ B- α on the sites that trigger its degradation, Serines 32 and 36. The functional IKK complex contains three subunits, IKK α , IKK β and IKK γ (also designated NEMO), and each appear to make essential contributions to I κ B phosphorylation. IKK-i is a serine/threonine kinase that shares homology with IKK α and IKK β . IKK-i is primarily expressed in immune cells and is induced by lipopolysaccharide and by proinflammatory cytokines including TNF α , IL-1 and IL-6. Overexpression of IKK-i has been shown to result in phosphorylation of I κ B α on Ser 32 and Ser 36, and in NF κ B activation, suggesting that IKK-i may act as an I κ B kinase in the immune system.

REFERENCES

- Verma, I.M., et al. 1995. Rel/NF κ B/I κ B family: intimate tales of association and dissociation. *Genes Dev.* 9: 2723-2735.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: IKBKE (human) mapping to 1q32.1; Ikbke (mouse) mapping to 1 E4.

SOURCE

IKK-i (H-116) is a rabbit polyclonal antibody raised against amino acids 440-555 mapping near the C-terminus of IKK-i 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.

APPLICATIONS

IKK-i (H-116) is recommended for detection of IKK-i of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IKK-i siRNA (h): sc-39056, IKK-i siRNA (m): sc-39057, IKK-i shRNA Plasmid (h): sc-39056-SH, IKK-i shRNA Plasmid (m): sc-39057-SH, IKK-i shRNA (h) Lentiviral Particles: sc-39056-V and IKK-i shRNA (m) Lentiviral Particles: sc-39057-V.

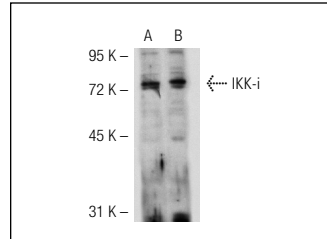
Molecular Weight of IKK-i: 80 kDa.

Positive Controls: IKK-i (m): 293T Lysate: sc-121028, RAW 309 Cr.1 cell lysate: sc-3814 or MCF7 whole cell lysate: sc-2206.

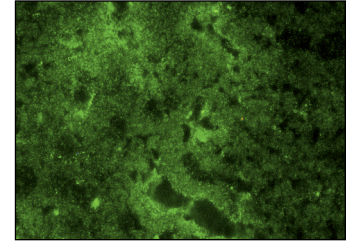
STORAGE

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

DATA



IKK-i (H-116): sc-10760. Western blot analysis of IKK-i expression in non-transfected: sc-117752 (A) and mouse IKK-i transfected: sc-121028 (B) 293T whole cell lysates.



IKK-i (H-116): sc-10760. Immunofluorescence staining of normal mouse liver frozen section showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

- Buss, H., et al. 2004. Constitutive and interleukin-1-inducible phosphorylation of p65 NF κ B at Serine 536 is mediated by multiple protein kinases including I κ B kinase (IKK) α , IKK β , IKK ϵ , TRAF family member-associated (TANK)-binding kinase 1 (TBK1) and an unknown kinase and couples p65 to TATA-binding protein-associated factor II31-mediated interleukin-8 transcription. *J. Biol. Chem.* 53: 55633-55643.
- Tamassia, N., et al. 2007. The MyD88-independent pathway is not mobilized in human neutrophils stimulated via TLR4. *J. Immunol.* 178: 7344-7356.
- Renner, F., et al. 2010. SUMOylation-dependent localization of IKK ϵ in PML nuclear bodies is essential for protection against DNA-damage-triggered cell death. *Mol. Cell* 37: 503-515.

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.



Try **IKK-i (A-11): sc-376114** or **IKK-i (E-2): sc-374546**, our highly recommended monoclonal alternatives to IKK-i (H-116).