

IKK-i (K-14): sc-5694

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 was shown to result in phosphorylation of I κ B α on Ser32 and Ser36, and in NF κ B activation, suggesting that IKK-i may act as an I κ B kinase in the immune system.

CHROMOSOMAL LOCATION

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

SOURCE

IKK-i (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of IKK-i of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-5694 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IKK-i (K-14) 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), immunohistochemistry (including paraffin-embedded sections) (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: Mouse spleen extract: sc-2391, RAW 309 Cr.1 cell lysate: sc-3814 or Daudi cell lysate: sc-2415.

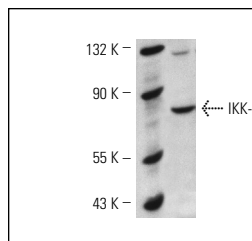
STORAGE

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

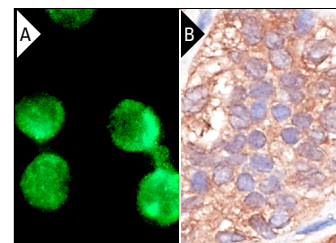
RESEARCH USE

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

DATA



IKK-i (K-14): sc-5694. Western blot analysis of IKK-i expression in RAW 309 Cr.1 whole cell lysate.



IKK-i (K-14): sc-5694. Immunofluorescence staining of methanol-fixed RAW 309 Cr.1 cells (A) and immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast tumor (B) showing cytoplasmic staining.

PRODUCT CITATIONS

- Eddy, S.F., et al. 2005. Inducible I κ B kinase/I κ B kinase ϵ expression is induced by CK2 and promotes aberrant nuclear factor- κ B activation in breast cancer cells. *Cancer Res.* 65: 11375-11383.
- Sweeney, S.E., et al. 2005. Regulation of c-Jun phosphorylation by the I κ B kinase- ϵ complex in fibroblast-like synoviocytes. *J. Immunol.* 174: 6424-6430.
- Sweeney, S.E., et al. 2007. Antiviral gene expression in rheumatoid arthritis: role of IKK ϵ and interferon regulatory factor 3. *Arthritis Rheum.* 56: 743-752.
- Nociari, M., et al. 2009. Adenovirus induction of IRF-3 occurs through a binary trigger targeting Jun N-terminal kinase and TBK1 kinase cascades and type I interferon autocrine signaling. *J. Virol.* 83: 4081-4091.
- Annunziata, C.M., et al. 2010. NFKB transcription factors are coexpressed and convey a poor outcome in ovarian cancer. *Cancer* 116: 3276-3284.

PROTOCOLS

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

MONOS
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Try **IKK-i (A-11): sc-376114** or **IKK-i (E-2): sc-374546**, our highly recommended monoclonal alternatives to IKK-i (K-14).