

IKAP (E-18): sc-5408

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 the 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. IKK α appears to be critical for NF κ B activation in response to proinflammatory cytokines. Phosphorylation of the I κ B by IKK α is stimulated by the NF κ B inducing kinase (NIK), which itself is a central regulator for NF κ B activation in response to TNF and IL-1. The functional IKK complex contains three subunits, IKK α , IKK β and IKK γ (also designated NEMO), and each appears to make essential contributions to I κ B phosphorylation. IKAP (IKK-complex-associated protein) is a protein that acts as a scaffold, interacting with NIK, IKK α and IKK β and assembling them into an active kinase complex.

REFERENCES

1. 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.
2. Thanos, D. and Maniatis, T. 1995. NF κ B: a lesson in family values. *Cell* 80: 529-532.
3. Connelly, M.A. and Marcu, K.B. 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. Regnier, C.H., et al. 1997. Identification and characterization of an I κ B kinase. *Cell* 90: 373-383.
5. Malinin, N.L., et al. 1997. MAP3K-related kinase involved in NF κ B induction by TNF, CD95 and IL-1. *Nature* 385: 540-544.
6. DiDonato, J.A., et al. 1997. A cytokine-responsive I κ B kinase that activates the transcription factor NF κ B. *Nature* 388: 548-554.

CHROMOSOMAL LOCATION

Genetic locus: IKBKAP (human) mapping to 9q31.3.

SOURCE

IKAP (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IKAP 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.

Blocking peptide available for competition studies, sc-5408 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4 $^{\circ}$ 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.

APPLICATIONS

IKAP (E-18) is recommended for detection of IKAP of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

IKAP (E-18) is also recommended for detection of IKAP in additional species, including canine.

Suitable for use as control antibody for IKAP siRNA (h): sc-40692, IKAP shRNA Plasmid (h): sc-40692-SH and IKAP shRNA (h) Lentiviral Particles: sc-40692-V.

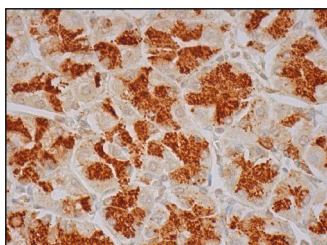
Molecular Weight of IKAP: 150 kDa.

Positive Controls: PCEP-4 whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz[™]: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



IKAP (E-18): sc-5408. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing cytoplasmic staining of glandular cells.

PROTOCOLS

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



Try **IKAP (33): sc-136412** or **IKAP (H-11): sc-376509**, our highly recommended monoclonal alternatives to IKAP (E-18).