

IKK α (M-20): sc-7190

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. IKK α appears to be critical for NF κ B activation in response to proinflammatory cytokines. Phosphorylation of 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 appear to make essential contributions to I κ B phosphorylation.

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., et al. 1995. NF- κ B: a lesson in family values. *Cell.* 80: 529-532.
3. 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.
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. Zandi, E., et al. 1997. The I κ B kinase complex (IKK) contains two kinase subunits, IKK α and IKK β , necessary for I κ B phosphorylation and NF- κ B activation *Cell.* 91: 243-252.
7. Yamaoka, S., et al. 1998. Complementation cloning of NEMO, a component of the I κ B kinase complex essential for NF κ B activation. *Cell* 93: 1231-1240.

CHROMOSOMAL LOCATION

Genetic locus: Chuk (mouse) mapping to 19 C3.

SOURCE

IKK α (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of IKK α 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-7190 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.

APPLICATIONS

IKK α (M-20) is recommended for detection of IKK α of mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IKK α siRNA (m): sc-29366, IKK α shRNA Plasmid (m): sc-29366-SH and IKK α shRNA (m) Lentiviral Particles: sc-29366-V.

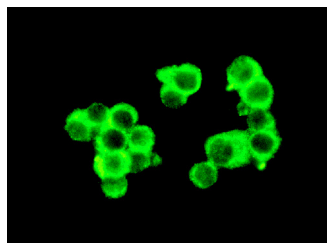
Molecular Weight of IKK α : 85 kDa.

Positive Controls: WEHI-231 whole cell lysate: sc-2213 or PC-12 cell lysate: sc-2250.

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 MarkerTM compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz MarkerTM 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 UltraCruzTM Mounting Medium: sc-24941.

DATA



IKK α (M-20): sc-7190. Immunofluorescence staining of methanol-fixed WEHI-231 cells showing cytoplasmic localization.

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.

MONOS
Satisfaction
Guaranteed

Try **IKK α (B-8): sc-7606** or **IKK α (D-5): sc-136978**, our highly recommended monoclonal alternatives to IKK α (M-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **IKK α (B-8): sc-7606**.