

IKK γ (FL-419): sc-8330

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.

CHROMOSOMAL LOCATION

Genetic locus: IKBKG (human) mapping to Xq28; Ikbkg (mouse) mapping to X A7.3.

SOURCE

IKK γ (FL-419) is a rabbit polyclonal antibody raised against amino acids 1-419 representing full length IKK γ 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.

IKK γ (FL-419) is available conjugated to agarose (sc-8330 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; and to either fluorescein (sc-8330 FITC), Alexa Fluor[®] 488 (sc-8330 AF488) or Alexa Fluor[®] 647 (sc-8330 AF647), 200 μ g/ml, for IF, IHC(P) and FCM.

In addition, IKK γ (FL-419) is available conjugated to either TRITC (sc-8330 TRITC, 200 μ g/ml) or Alexa Fluor[®] 405 (sc-8330 AF405), 100 μ g/2 ml, for IF, IHC(P) and FCM.

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APPLICATIONS

IKK γ (FL-419) is recommended for detection of IKK γ 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).

IKK γ (FL-419) is also recommended for detection of IKK γ in additional species, including bovine and porcine.

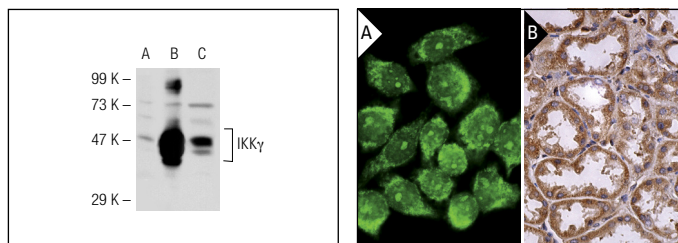
Suitable for use as control antibody for IKK γ siRNA (h): sc-29363, IKK γ siRNA (m): sc-29364, IKK γ shRNA Plasmid (h): sc-29363-SH, IKK γ shRNA Plasmid (m): sc-29364-SH, IKK γ shRNA (h) Lentiviral Particles: sc-29363-V and IKK γ shRNA (m) Lentiviral Particles: sc-29364-V.

Molecular Weight of IKK γ : 48 kDa.

STORAGE

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

DATA



IKK γ (FL-419): sc-8330. Western blot analysis of IKK γ expression in non-transfected 293T: sc-117752 (A), mouse IKK γ transfected 293T: sc-121029 (B) and HeLa (C) whole cell lysates.

IKK γ (FL-419) Alexa Fluor[®] 488: sc-8330 AF488. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). IKK γ (FL-419): sc-8330. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules (B).

SELECT PRODUCT CITATIONS

- Krappmann, D., et al. 2001. B cell receptor- and phorbol ester-induced NF κ B and c-Jun N-terminal kinase activation in B cells requires novel protein kinase C's. *Mol. Cell. Biol.* 21: 6640-6650.
- Xiao, G., et al. 2001. Retroviral oncoprotein Tax induces processing of NF κ B2/p100 in T cells: evidence for the involvement of IKK α . *EMBO J.* 20: 6805-6815.
- Lesueur, C., et al. 2012. Glutamine induces nuclear degradation of the NF κ B p65 subunit in Caco-2/TC7 cells. *Biochimie* 94: 806-815.
- Randall, C.M., et al. 2012. The MC159 protein from the molluscum contagiosum poxvirus inhibits NF κ B activation by interacting with the I κ B kinase complex. *J. Immunol.* 188: 2371-2379.
- Ortis F, et al. 2012. Differential usage of NF κ B activating signals by IL-1 β and TNF- α in pancreatic β cells. *FEBS Lett.* 586: 984-989.
- Kensche, T., et al. 2012. Analysis of nuclear factor- κ B (NF κ B) essential modulator (NEMO) binding to linear and lysine-linked ubiquitin chains and its role in the activation of NF κ B. *J. Biol. Chem.* 287: 23626-23634.
- Margalef, P., et al. 2012. A truncated form of IKK α is responsible for specific nuclear IKK activity in colorectal cancer. *Cell Rep.* 2: 840-854.

RESEARCH USE

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



Try **IKK γ (F-10): sc-166398** or **IKK γ (B-3): sc-8032**, our highly recommended monoclonal alternatives to IKK γ (FL-419). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **IKK γ (F-10): sc-166398**.