

IKK γ (F-10): sc-166398

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 Serine 32 and 36, the sites that trigger its degradation. 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 (F-10) is a mouse monoclonal antibody raised against full length IKK γ of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IKK γ (F-10) is available conjugated to agarose (sc-166398 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166398 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166398 PE), fluorescein (sc-166398 FITC), Alexa Fluor[®] 488 (sc-166398 AF488), Alexa Fluor[®] 546 (sc-166398 AF546), Alexa Fluor[®] 594 (sc-166398 AF594) or Alexa Fluor[®] 647 (sc-166398 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-166398 AF680) or Alexa Fluor[®] 790 (sc-166398 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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 γ (F-10) is recommended for detection of IKK γ of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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.

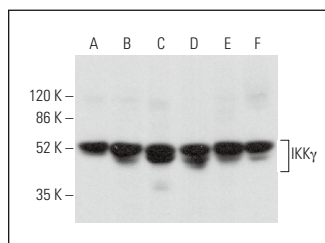
Molecular Weight of IKK γ : 48 kDa.

Positive Controls: c4 whole cell lysate: sc-364186, C2C12 whole cell lysate: sc-364188 or IKK γ (h): 293T Lysate: sc-116282.

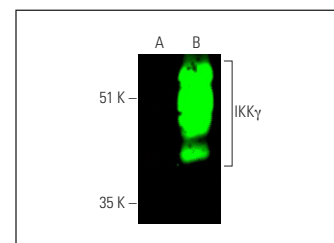
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



IKK γ (F-10): sc-166398. Western blot analysis of IKK γ expression in PC-3 (A), U-251-MG (B), c4 (C), C2C12 (D), A-10 (E) and C6 (F) whole cell lysates.



IKK γ (F-10): sc-166398. Near-infrared western blot analysis of IKK γ expression in non-transfected: sc-117752 (A) and human IKK γ transfected: sc-116282 (B) 293T whole cell lysates. Blocked with UltraCruz[®] Blocking Reagent: sc-516214. Detection reagent used: m-IgG κ BP-CFL 680: sc-516180.

SELECT PRODUCT CITATIONS

- Bist, P., et al. 2017. ArfGAP domain-containing protein 2 (ADAP2) integrates upstream and downstream modules of RIG-I signaling and facilitates type I interferon production. *Mol. Cell. Biol.* 37: e00537-16.
- Razani, B., et al. 2020. Non-catalytic ubiquitin binding by A20 prevents psoriatic arthritis-like disease and inflammation. *Nat. Immunol.* 21: 422-433.
- Sun, R., et al. 2021. TNFSF15 promotes antimicrobial pathways in human macrophages and these are modulated by TNFSF15 disease-risk variants. *Cell. Mol. Gastroenterol. Hepatol.* 11: 249-272.
- Fang, S., et al. 2023. Early pregnancy regulates expression of I κ B family in ovine spleen and lymph nodes. *Int. J. Mol. Sci.* 24: 5156.
- Cai, C., et al. 2023. Expression of I κ B family in the ovine liver during early pregnancy. *Animals* 13: 1057.

RESEARCH USE

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

PROTOCOLS

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

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA