SANTA CRUZ BIOTECHNOLOGY, INC.

IKAP (H-302): sc-8336

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The transcription factor NFκB is retained in the cytoplasm in an inactive form by the inhibitory protein IκB. Activation of NFκB requires that IκB be phosphorylated on specific Serine residues, which results in the targeted degradation of IκB. IκB kinase α (IKKα), previously designated CHUK, interacts with IκB-α and specifically phosphorylates IκB-α on the sites that trigger its degradation, Serines 32 and 36. IKKα appears to be critical for NFκB activation in response to proinflammatory cytokines. Phosphorylation of the IκB by IKKα is stimulated by the NFκB inducing kinase (NIK), which itself is a central regulator for NFκB activation in response to TNF and IL-1. The functional IKK complex contains three subunits, IKKα, IKKβ and IKKγ (also designated NEMO) and each appears to make essential contributions to IκB phosphorylation. IKAP (IKK-complex-associated protein) is a protein that acts as a scaffold, interacting with NIK, IKKα and IKKβ and assembling them into an active kinase complex.

CHROMOSOMAL LOCATION

Genetic locus: IKBKAP (human) mapping to 9q31.3; Ikbkap (mouse) mapping to 4 B3.

SOURCE

IKAP (H-302) is a rabbit polyclonal antibody raised against amino acids 1031-1332 mapping at the C-terminus of IKAP of human origin.

PRODUCT

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

APPLICATIONS

IKAP (H-302) is recommended for detection of IKAP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

IKAP (H-302) is also recommended for detection of IKAP in additional species, including equine, canine and porcine.

Suitable for use as control antibody for IKAP siRNA (h): sc-40692, IKAP siRNA (m): sc-40693, IKAP shRNA Plasmid (h): sc-40692-SH, IKAP shRNA Plasmid (m): sc-40693-SH, IKAP shRNA (h) Lentiviral Particles: sc-40692-V and IKAP shRNA (m) Lentiviral Particles: sc-40693-V.

Molecular Weight of IKAP: 150 kDa.

STORAGE

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

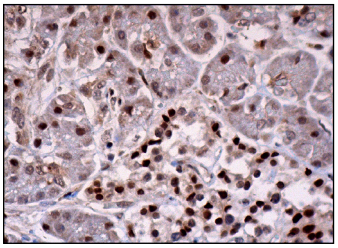
RESEARCH USE

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

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



IKAP (H-302): sc-8336. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic and nuclear staining of exocrine glandular cells and Islets of Langerhans.

SELECT PRODUCT CITATIONS

1. Holmberg, C., et al. 2002. A novel specific role for IB Kinase complex-associated protein in cytosolic stress signaling. J. Biol. Chem. 277: 31918-31928.
2. Gardiner, J., et al. 2008. Defects in tongue papillae and taste sensation indicate a problem with neurotrophic support in various neurological diseases. Neuroscientist 14: 240-250.
3. Mittal, S., et al. 2011. The Ccr4a (CNOT6) and Ccr4b (CNOT6L) deadenylase subunits of the human Ccr4-Not complex contribute to the prevention of cell death and senescence. Mol. Biol. Cell 22: 748-758.
4. Abashidze, A., et al. 2014. Involvement of IKAP in peripheral target innervation and in specific JNK and NGF signaling in developing PNS neurons. PLoS ONE 9: e113428.