SANTA CRUZ BIOTECHNOLOGY, INC.

IκB-α (C-15): sc-203

BACKGROUND

On the basis of both functional and structural considerations, members of the IκB family of proteins can be divided into four groups. The first of these groups, IκB-α, includes the avian protein pp40 and the mammalian MAD-3, both of which inhibit binding of p50-p65 NFκB complex or Rel protein to their cognate binding sites but do not inhibit the binding of p50 homodimer to κB sites, suggesting that the IκB-α family binds to the p65 subunit of p50-p65 heterocomplex through ankyrin repeats. The second member of the IκB family is represented by a protein designated IκB-β. The third group of IκB proteins is represented by IκB-γ, a protein identical in sequence with the C-terminal domain of the p110 precursor of NFκB p50 and expressed predominantly in lymphoid cells. An additional IκB family member has been identified as IκB-ε, a protein which has several phosphorylated forms and is primarily found complexed with Rel A and/or c-Rel.

CHROMOSOMAL LOCATION

Genetic locus: NFKBIA (human) mapping to 14q13.2; Nfkbia (mouse) mapping to 12 C1.

SOURCE

IκB-α (C-15) is available as either rabbit (sc-203) or goat (sc-203-G) polyclonal affinity purified antibody raised against a peptide mapping within the N-terminus of IκB-α 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.

Blocking peptide available for competition studies, sc-203 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-203 AC, 500 µg/0.25 ml agarose in 1 ml.

APPLICATIONS

IκB-α (C-15) is recommended for detection of IκB-α of human and, to a lesser extent, mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IκB-α siRNA (h): sc-29360, IκB-α siRNA (m): sc-29361, IκB-α shRNA Plasmid (h): sc-29360-SH, IκB-α shRNA Plasmid (m): sc-29361-SH, IκB-α shRNA (h) Lentiviral Particles: sc-29360-V and IκB-α shRNA (m) Lentiviral Particles: sc-29361-V.

Molecular Weight of IκB-α: 35-41 kDa.

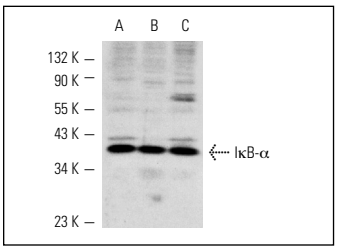
STORAGE

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

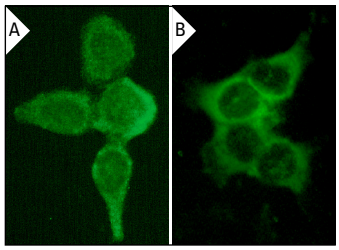
RESEARCH USE

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

DATA



IκB-α (C-15)-G: sc-203-G. Western blot analysis of IκB-α expression in HeLa (**A**), Jurkat (**B**) and A-431 (**C**) whole cell lysates.



Immunofluorescence staining of methanol-fixed A-431 cells showing cytoplasmic staining (**A**,**B**). Antibodies tested include IκB-α (C-15)-G: sc-203 (**A**) and IκB-α (C-15)-G: sc-203-G (**B**).

SELECT PRODUCT CITATIONS

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3. Tang, S., et al. 2010. Cryptotanshinone suppressed inflammatory cytokines secretion in RAW264.7 macrophages through inhibition of the NFκB and MAPK signaling pathways. Inflammation 34: 111-118.
4. Dai, Y., et al. 2010. Natural proteasome inhibitor celastrol suppresses androgen-independent prostate cancer progression by modulating apoptotic proteins and NFκB. PLoS ONE 5: e14153.
5. Kuliková, L., et al. 2010. NFκB is not directly responsible for photoresistance induced by fractionated light delivery in HT-29 colon adenocarcinoma cells. Photochem. Photobiol. 86: 1285-1293.
6. Amodio, G., et al. 2011. Proteomic signatures in thapsigargin-treated hepatoma cells. Chem. Res. Toxicol. 24: 1215-1222.
7. Barroso, E., et al. 2011. The peroxisome proliferator-activated receptor β/δ (PPARβ/δ) agonist GW501516 prevents TNF-α-induced NFκB activation in human HaCaT cells by reducing p65 acetylation through AMPK and SIRT1. Biochem. Pharmacol. 81: 534-543.
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