SANTA CRUZ BIOTECHNOLOGY, INC.

p-NFκB p65 (A-8): sc-166748

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Proteins encoded by the v-Rel viral oncogene and its cellular homolog, c-Rel, are members of a family of transcription factors that include the two subunits of the transcription factor NFκB (p50 and p65) and the *Drosophila* maternal morphogen, dorsal. Both proteins specifically bind to DNA sequences that are the same or slight variations of the 10 bp κB sequence in the immunoglobulin κ light chain enhancer. This same sequence is also present in a number of other cellular and viral enhancers. The DNA binding activity of NFκB is activated and NFκB is subsequently transported from the cytoplasm to the nucleus in cells exposed to mitogens or growth factors. cDNAs encoding precursors for two distinct proteins have been described, designated p105 and p100. The p105 precursor contains p50 at its N-terminus and a C-terminal region that when expressed as a separate molecule, designated PDI, binds to p50 and regulates its activity. The NFκB transcription factor is a protein complex consisting of a DNA binding subunit and an associated protein. The DNA binding subunit, also referred to as Rel A, is functionally related to c-Rel p75 and RelB p68. NFκB p65 is phosphorylated at Serine-311 as a response to protein kinase C ζ.

CHROMOSOMAL LOCATION

Genetic locus: RELA (human) mapping to 11q13.1; Rela (mouse) mapping to 19 A.

SOURCE

p-NFκB p65 (A-8) is a mouse monoclonal antibody specific for an epitope containing Ser 311 phosphorylated NFκB p65 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-166748 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

p-NFκB p65 (A-8) is recommended for detection of Ser 311 phosphorylated NFκB p65 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

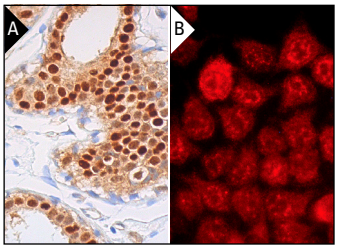
Suitable for use as control antibody for NFκB p65 siRNA (h): sc-29410, NFκB p65 siRNA (m): sc-29411, NFκB p65 siRNA (r): sc-61876, NFκB p65 shRNA Plasmid (h): sc-29410-SH, NFκB p65 shRNA Plasmid (m): sc-29411-SH, NFκB p65 shRNA Plasmid (r): sc-61876-SH, NFκB p65 shRNA (h) Lentiviral Particles: sc-29410-V, NFκB p65 shRNA (m) Lentiviral Particles: sc-29411-V and NFκB p65 shRNA (r) Lentiviral Particles: sc-61876-V.

Molecular Weight of p-NFκB p65: 65 kDa.

STORAGE

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

DATA



p-NFκB p65 (A-8): sc-166748. Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tissue showing nuclear and cytoplasmic staining of glandular cells and nuclear staining of myoepithelial cells (**A**). Immunofluorescence staining of methanol-fixed, phosphorylated HeLa cells showing nuclear and cytoplasmic localization (**B**).

SELECT PRODUCT CITATIONS

1. Luo, P., et al. 2010. Anti-inflammatory and analgesic effect of plumbagin through inhibition of nuclear factor-κB activation. J. Pharmacol. Exp. Ther. 335: 735-742.
2. Ni, B., et al. 2013. Glycyrrhizin protects spinal cord and reduces inflammation in spinal cord ischemia-reperfusion injury. Int. J. Neurosci. 123: 745-751.
3. Lan, N., et al. 2014. 25-hydroxyvitamin D3-deficiency enhances oxidative stress and corticosteroid resistance in severe asthma exacerbation. PLoS ONE 9: e111599.
4. Zhong, L., et al. 2015. Estrogen receptor α mediates the effects of notoginsenoside R1 on endotoxin-induced inflammatory and apoptotic responses in H9c2 cardiomyocytes. Mol. Med. Rep. 12: 119-126.
5. Li, R., et al. 2016. Type I CRISPR-Cas targets endogenous genes and regulates virulence to evade mammalian host immunity. Cell Res. 26: 1273-1287.
6. Luo, Y., et al. 2017. Ulinastatin post-treatment attenuates lipopolysaccharide-induced acute lung injury in rats and human alveolar epithelial cells. Int. J. Mol. Med. 39: 297-306.
7. Cao, C., et al. 2018. Ulinastatin mediates suppression of regulatory T cells through TLR4/NFκB signaling pathway in murine sepsis. Int. Immunopharmacol. 64: 411-423.
8. Yang, Z., et al. 2019. Platycodigenin as potential drug candidate for Alzheimer's disease via modulating microglial polarization and neurite regeneration. Molecules 24: 3207.
9. Zheng, B., et al. 2020. ATP1B3 cooperates with BST-2 to promote hepatitis B virus restriction. J. Med. Virol. 92: 201-209.

RESEARCH USE

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