

p-IKK α / β (Ser 180/Ser 181)-R: sc-23470-R

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 (IKK α), previously designated CHUK, interacts with I κ B- α and specifically phosphorylates I κ B- α on Ser 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.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CHUK (human) mapping to 10q24.31, IKBKB (human) mapping to 8p11.21; Chuk (mouse) mapping to 19 C3, Ikbkb (mouse) mapping to 8 A2.

SOURCE

p-IKK α / β (Ser 180/Ser 181)-R is an affinity purified rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 180/Ser 181 phosphorylated IKK α / β of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-23470 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-IKK α / β (Ser 180/Ser 181)-R is recommended for detection of Ser 180 phosphorylated IKK α and Ser 181 phosphorylated IKK β of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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). p-IKK α / β (Ser 180/Ser 181)-R is also recommended for detection of correspondingly phosphorylated IKK α and IKK β in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of p-IKK α : 85 kDa.

Molecular Weight of p-IKK β : 87 kDa.

Positive Controls: HeLa + TNF α cell lysate: sc-2228.

STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SELECT PRODUCT CITATIONS

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15. Oliveira, V., et al. 2015. Diets containing α -Linolenic (ω 3) or Oleic (ω 9) fatty acids rescues obese mice from Insulin resistance. *Endocrinology* 156: 4033-4046.

RESEARCH USE

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