**BACKGROUND**

The activation of signal transduction pathways by growth factors, hormones and neurotransmitters is mediated through two closely related MAP kinases, p44 and p42, designated extracellular-signal-related kinase 1 (ERK 1) and ERK 2, respectively. ERK proteins are regulated by dual phosphorylation at specific tyrosine and threonine sites mapping with a characteristic Thr-Glu-Tyr motif. Phosphorylation at both Thr 183 and Tyr 185 is required for full enzymatic activation. In response to activation, MAP kinases phosphorylate downstream components on serine and threonine. Nlk, or nemo-like kinase, is a murine homolog of the *Drosophila* nemo (nmo) gene. Nlk and nmo have sequence homology to both the ERK MAP kinases and the cyclin dependent kinases. Nlk is a nuclear protein with the ability to autophosphorylate.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: NLK (human) mapping to 17q11.2; Nlk (mouse) mapping to 11 B5.

**SOURCE**

Nlk (B-5) is a mouse monoclonal antibody raised against amino acids 416-515 of Nlk of human origin.

**PRODUCT**

Each vial contains 200 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Nlk (B-5) is available conjugated to agarose (sc-48361 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-48361 HRP), 200 µg/ml, for WB, IHC (P) and ELISA; to either phycoerythrin (sc-48361 PE), fluorescein (sc-48361 FITC), Alexa Fluor® 488 (sc-48361 AF488), Alexa Fluor® 546 (sc-48361 AF546), Alexa Fluor® 594 (sc-48361 AF594) or Alexa Fluor® 647 (sc-48361 AF647), 200 µg/ml, for WB (RGB), IF, IHC (P) and FCM; and to either Alexa Fluor® 680 (sc-48361 AF680) or Alexa Fluor® 790 (sc-48361 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**STORAGE**

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

**APPLICATIONS**

Nlk (B-5) is recommended for detection of Nlk 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), immunohistochecmistry (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).

Nlk (B-5) is also recommended for detection of Nlk in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for Nlk siRNA (h): sc-36079, Nlk siRNA (m): sc-36080, Nlk shRNA Plasmid (h): sc-36079-SH, Nlk shRNA Plasmid (m): sc-36080-SH, Nlk shRNA (h) Lentiviral Particles: sc-36079-V and Nlk shRNA (m) Lentiviral Particles: sc-36080-V.

Molecular Weight of Nlk: 60 kDa.


**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

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