

IKIP (E-3): sc-515346

BACKGROUND

IKIP (inhibitor of nuclear factor κ -B kinase-interacting protein, IKK-interacting protein) is a single-pass membrane protein that shares a common promoter with APAF1. APAF1 and IKIP are both induced by X irradiation, however, the two gene products are transcribed in different directions. The IKIP gene is believed to be a target for p53 as expression of IKIP has been shown to promote apoptosis. IKIP has four known isoforms, three of which are found traversing the endoplasmic reticulum membrane. IKIP isoform 4 has a deletion of the transmembrane region which leads to a homogenous distribution of the protein within the cell. The IKIP gene products are expressed in vascular endothelial cells, while the isoform 4 has also been detected in lung, kidney, spleen, thymus and skeletal muscle.

REFERENCES

1. Tombakan-Runtukahu, J. and Nitko, A.J. 1992. Translation, cultural adjustment, and validation of a measure of adaptive behavior. *Res. Dev. Disabil.* 13: 481-501.
2. Arty, I.S., et al. 2000. Synthesis of benzylideneacetophenones and their inhibition of lipid peroxidation. *Eur. J. Med. Chem.* 35: 449-457.
3. Hofer-Warbinek, R., et al. 2004. A highly conserved proapoptotic gene, IKIP, located next to the APAF1 gene locus, is regulated by p53. *Cell Death Differ.* 11: 1317-1325.
4. Avila, C.M., et al. 2009. Structural insights into IKK β inhibition by natural products staurosporine and quercetin. *Bioorg. Med. Chem. Lett.* 19: 6907-6910.
5. Emmanouil, M., et al. 2009. Neuronal I κ B kinase β protects mice from autoimmune encephalomyelitis by mediating neuroprotective and immunosuppressive effects in the central nervous system. *J. Immunol.* 183: 7877-7889.
6. Lin, Y., et al. 2010. The NF κ B activation pathways, emerging molecular targets for cancer prevention and therapy. *Expert Opin. Ther. Targets* 14: 45-55.

CHROMOSOMAL LOCATION

Genetic locus: IKBIP (human) mapping to 12q23.1; Ikbip (mouse) mapping to 10 C2.

SOURCE

IKIP (E-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 174-189 within an internal region of IKIP of human origin.

PRODUCT

Each vial contains 200 μ g 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-515346 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

IKIP (E-3) is recommended for detection of IKIP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 IKIP siRNA (m): sc-146201, IKIP shRNA Plasmid (m): sc-146201-SH and IKIP shRNA (m) Lentiviral Particles: sc-146201-V.

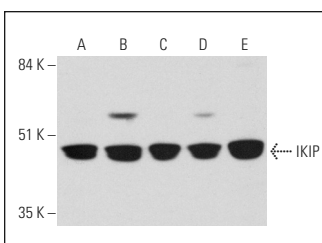
Molecular Weight of IKIP isoforms: 7/27/39/43 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or A549 cell lysate: sc-2413.

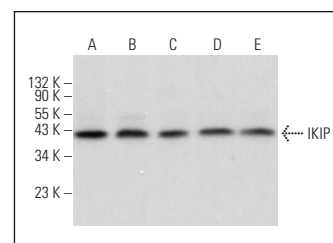
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



IKIP (E-3): sc-515346. Western blot analysis of IKIP expression in A549 (A), HeLa (B), KNRK (C), Jurkat (D) and HUV-EC-C (E) whole cell lysates.



IKIP (E-3): sc-515346. Western blot analysis of IKIP expression in ECV304 (A), C2C12 (B), Y79 (C), A-10 (D) and NIH/3T3 (E) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Wu, H., et al. 2020. IKIP negatively regulates NF κ B activation and inflammation through inhibition of IKK α / β phosphorylation. *J. Immunol.* 204: 418-427.
2. Liu, H., et al. 2021. A peptide derived from IKK-interacting protein attenuates NF κ B activation and inflammation. *J. Immunol.* 207: 1652-1661.

STORAGE

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