

MINK1 (E-17): sc-54964

BACKGROUND

MINK1 (misshapen-like kinase 1, mitogen-activated protein kinase kinase kinase 6, GCK family kinase MINK) is a 1,332 amino acid protein encoded by the human gene MINK1. MINK1 belongs to the protein kinase superfamily, Ste Ser/Thr protein kinase family, Ste20 subfamily and contains one CNH domain and one protein kinase domain. MINK1 acts as a serine/threonine kinase and may play a role in the response to environmental stress. It appears to act upstream of the Jun N-terminal pathway. May play a role in the development of the brain. MINK1 is expressed in all tissues with highest expression found in the brain. Thymocytes that engage MHC-self peptide complexes with intermediate affinity are expanded in the thymus through a process of positive selection, whereas those that bind to these complexes with high affinity are eliminated through a process of negative selection. MINK1 is thought to be an essential component of the signaling element that couples the T cell receptor for negative, but not positive, selection.

REFERENCES

- Dan, I., et al. 2000. Molecular cloning of MINK, a novel member of mammalian GCK family kinases, which is up-regulated during postnatal mouse cerebral development. *FEBS Lett.* 469: 19-23.
- Dan, I., et al. 2002. Overlapping of MINK and CHRNE gene loci in the course of mammalian evolution. *Nucleic Acids Res.* 30: 2906-2910.
- Qu, K., et al. 2004. Computational and experimental studies on human misshapen/NIK-related kinase MINK1. *Curr. Med. Chem.* 11: 569-582.
- Hu, Y., et al. 2004. Identification and functional characterization of a novel human misshapen/Nck interacting kinase-related kinase, hMINK β . *J. Biol. Chem.* 279: 54387-54397.
- McCarty, N., et al. 2004. Signaling by the kinase MINK is essential in the negative selection of autoreactive thymocytes. *Nat. Immunol.* 6: 65-72.
- Nicke, B., et al. 2005. Involvement of MINK, a Ste20 family kinase, in Ras oncogene-induced growth arrest in human ovarian surface epithelial cells. *Mol. Cell* 20: 673-685.

CHROMOSOMAL LOCATION

Genetic locus: MINK1 (human) mapping to 17p13.2; Mink1 (mouse) mapping to 11 B3.

SOURCE

MINK1 (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MINK1 of human origin.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

PRODUCT

Each vial contains 200 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-54964 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MINK1 (E-17) is recommended for detection of MINK1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

MINK1 (E-17) is also recommended for detection of MINK1 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for MINK1 siRNA (h): sc-62616, MINK1 siRNA (m): sc-62617, MINK1 shRNA Plasmid (h): sc-62616-SH, MINK1 shRNA Plasmid (m): sc-62617-SH, MINK1 shRNA (h) Lentiviral Particles: sc-62616-V and MINK1 shRNA (m) Lentiviral Particles: sc-62617-V.

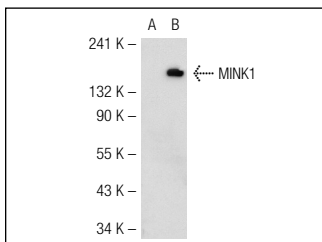
Molecular Weight of MINK1: 150 kDa.

Positive Controls: MINK1 (h3): 293T Lysate: sc-171838.

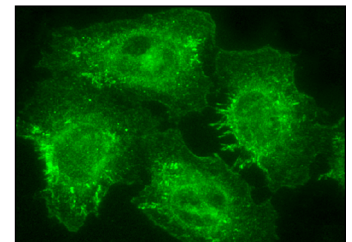
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MINK1 (E-17): sc-54964. Western blot analysis of MINK1 expression in non-transfected: sc-117752 (A) and human MINK1 transfected: sc-171838 (B) 293T whole cell lysates.



MINK1 (E-17): sc-54964. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and membrane localization.

RESEARCH USE

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