

HPK1 (N-19): sc-6231

BACKGROUND

Several mammalian kinases have been identified with sequence similarity to the *Saccharomyces cerevisiae* serine/threonine kinase STE20. STE20 is involved in relaying signals from G protein-coupled receptors to cytosolic MAP kinase cascades, and it lies upstream of a MAP kinase kinase. Mammalian STE20-like kinases include HPK1, KHS, GLK, NIK, YSK1, Krs-1, Krs-2 and GC kinase. HPK1 (hematopoietic progenitor kinase 1), like many other STE20-like kinases, specifically activates the JNK signaling pathway. HPK1 binds to and phosphorylates MEKK, suggesting it plays an important role in regulating the stress responsive JNK/SAPK signaling pathway.

CHROMOSOMAL LOCATION

Genetic locus: MAP4K1 (human) mapping to 19q13.2; Map4k1 (mouse) mapping to 7 B1.

SOURCE

HPK1 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of HPK1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HPK1 (N-19) is available conjugated to agarose (sc-6231 AC), 500 µg/0.25 ml agarose in 1 ml, for IP.

Blocking peptide available for competition studies, sc-6231 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HPK1 (N-19) is recommended for detection of HPK1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

HPK1 (N-19) is also recommended for detection of HPK1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HPK1 siRNA (h): sc-35591, HPK1 siRNA (m): sc-35592, HPK1 shRNA Plasmid (h): sc-35591-SH, HPK1 shRNA Plasmid (m): sc-35592-SH, HPK1 shRNA (h) Lentiviral Particles: sc-35591-V and HPK1 shRNA (m) Lentiviral Particles: sc-35592-V.

Molecular Weight of HPK1: 97 kDa.

Positive Controls: HuT 78 whole cell lysate: sc-2208, Ramos cell lysate: sc-2216 or Jurkat whole cell lysate: sc-2204.

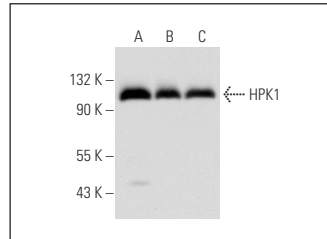
STORAGE

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

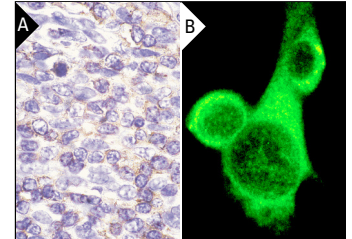
RESEARCH USE

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

DATA



HPK1 (N-19): sc-6231. Western blot analysis of HPK1 expression in Jurkat (A), HuT 78 (B) and Ramos (C) whole cell lysates.



HPK1 (N-19): sc-6231. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human tonsil (A) and immunofluorescence staining of methanol-fixed NIH/3T3 cells (B) showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Ling, P., et al. 2001. Involvement of hematopoietic progenitor kinase 1 in T cell receptor signaling. *J. Biol. Chem.* 276: 18908-18914.
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- Yang, H.S., et al. 2006. Tumorigenesis suppressor Pcd4 down-regulates mitogen-activated protein kinase kinase kinase 1 expression to suppress colon carcinoma cell invasion. *Mol. Cell. Biol.* 26: 1297-1306.
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- Wang, H., et al. 2009. Proteasome-mediated degradation and functions of hematopoietic progenitor kinase 1 in pancreatic cancer. *Cancer Res.* 69: 1063-1070.
- Lee, J.S., et al. 2009. Recruitment of Sprouty1 to immune synapse regulates T cell receptor signaling. *J. Immunol.* 183: 7178-7186.
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PROTOCOLS

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