

# HPK1 (H-200): sc-25414

## 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 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 (H-200) is a rabbit polyclonal antibody raised against amino acids 291-490 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.

## 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.

## APPLICATIONS

HPK1 (H-200) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HPK1 (H-200) is also recommended for detection of HPK1 in additional species, including 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.

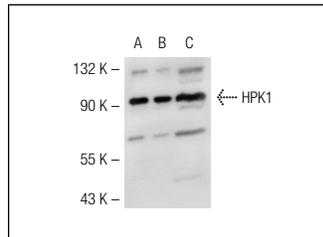
Molecular Weight of HPK1: 97 kDa.

Positive Controls: HPK1 (m): 293T Lysate: sc-126974, BJAB whole cell lysate: sc-2207 or Ramos cell lysate: sc-2216.

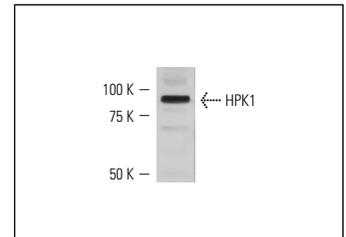
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



HPK1 (H-200): sc-25414. Western blot analysis of HPK1 expression in non-transfected 293T: sc-117752 (A), mouse HPK1 transfected 293T: sc-126974 (B) and BJAB (C) whole cell lysates.



HPK1 (H-200): sc-25414. Western blot analysis of HPK1 expression in Ramos whole cell lysate.

## SELECT PRODUCT CITATIONS

- Girardin, S.E. and Yaniv, M. 2001. A direct interaction between JNK1 and Crk II is critical for Rac1-induced JNK activation. *EMBO J.* 20: 3437-3446.
- Chen-Deutsch, X. and Studzinski, G.P. 2012. Dual role of hematopoietic progenitor kinase 1 (HPK1) as a positive regulator of 1 $\alpha$ ,25-dihydroxyvitamin D-induced differentiation and cell cycle arrest of AML cells and as a mediator of vitamin D resistance. *Cell Cycle* 11: 1364-1373.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **HPK1 (G-9): sc-374183** or **HPK1 (C-9): sc-376169**, our highly recommended monoclonal alternatives to HPK1 (H-200).