SANTA CRUZ BIOTECHNOLOGY, INC.

HPK1 (h): 293T Lysate: sc-128828

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The Power to Question

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.

REFERENCES

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2. Wu, C., Whiteway, M., Thomas, D.Y. and Leberer, E. 1995. Molecular characterization of Ste20p, a potential mitogen-activated protein or extracellular signal-regulated kinase kinase (MEK) kinase kinase from *Saccharomyces cerevisiae*. J. Biol. Chem. 270: 15984-15992.
3. Hu, M.C., Qiu, W.R., Wang, X., Meyer, C.F. and Tan, T.H. 1996. Human HPK1, a novel human hematopoietic progenitor kinase that activates the JNK/SAPK kinase cascade. Genes and Dev. 10: 2251-2264.
4. Su, Y.C., Han, J., Xu, S., Cobb, M. and Skolnik, E.Y. 1997. NIK is a new Ste20-related kinase that binds NCK and MEKK1 and activates the SAPK/JNK cascade via a conserved regulatory domain. EMBO J. 16: 1279-1290.
5. Anafi, M., Kiefer, F., Gish, G.D., Mbamalu, G., Iscove, N.N. and Pawson, T. 1997. SH2/SH3 adaptor proteins can link tyrosine kinases to a Ste20-related protein kinase, HPK1. J. Biol. Chem. 272: 27804-27811.

CHROMOSOMAL LOCATION

Genetic locus: MAP4K1 (human) mapping to 19q13.2.

PRODUCT

HPK1 (h): 293T Lysate represents a lysate of human HPK1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

HPK1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive HPK1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

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