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## Produktinformation



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Diagnostik & molekulare Diagnostik



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### Zuschläge

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- Gefahrgutzuschlag
- Expressversand

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# MKP-5 (h3): 293T Lysate: sc-176156

## BACKGROUND

Mitogen-activated protein (MAP) kinases are a large class of proteins involved in signal transduction pathways that are activated by a range of stimuli and mediate a number of physiological and pathological changes in the cell. Dual specificity phosphatases (DSPs) are a subclass of the protein tyrosine phosphatase (PTP) gene superfamily, which are selective for dephosphorylating critical phosphothreonine and phosphotyrosine residues within MAP kinases. DSP gene expression is induced by a host of growth factors and/or cellular stresses, thereby negatively regulating MAP kinase superfamily members including MAPK/ERK, SAPK/JNK and p38. MKP-5 preferentially binds to p38, but also to SAPK/JNK. It is ubiquitously expressed and localizes to both the cytoplasm and the nucleus. MKP-5 has been implicated in cell proliferation and apoptosis, tumor invasion and immune responses.

## REFERENCES

1. Keyse, S.M. 1995. An emerging family of dual specificity MAP kinase phosphatases. *Biochim. Biophys. Acta* 1265: 152-160.
2. Sun, H. 1998. Functional studies of dual-specificity phosphatases. *Methods Mol. Biol.* 84: 307-318.
3. Tanoue, T., Moriguchi, T. and Nishida, E. 1999. Molecular cloning and characterization of a novel dual specificity phosphatase, MKP-5. *J. Biol. Chem.* 274: 19949-19956.
4. Camps, M., Nichols, A. and Arkinstall, S. 2000. Dual specificity phosphatases: a gene family for control of MAP kinase function. *FASEB J.* 14: 6-16.
5. Masuda, K., Shima, H., Kikuchi, K., Watanabe, Y. and Matsuda, Y. 2000. Expression and comparative chromosomal mapping of MKP-5 genes DUSP10/Dusp10. *Cytogenet. Cell Genet.* 90: 71-74.
6. Theodosiou, A., Smith, A., Gillieron, C., Arkinstall, S. and Ashworth, A. 2000. dephosphorylates stress-activated kinases. *Oncogene* 18: 6981-6988.
7. Bar-Shira, A., Rashi-Elkeles, S., Zlochover, L., Moyal, L., Smorodinsky, N.I., Seger, R. and Shiloh, Y. 2002. Atm-dependent activation of the gene encoding MAP kinase phosphatase 5 by radiomimetic DNA damage. *Oncogene* 21: 849-855.

## CHROMOSOMAL LOCATION

Genetic locus: DUSP10 (human) mapping to 1q41.

## PRODUCT

MKP-5 (h3): 293T Lysate represents a lysate of human MKP-5 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## 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.

## PROTOCOLS

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

## APPLICATIONS

MKP-5 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive MKP-5 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.

## RESEARCH USE

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