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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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SANTA CRUZ BIOTECHNOLOGY, INC.

PRAK (h): 293T Lysate: sc-116012

BACKGROUND

PRAK (p38-regulated/activated kinase), also referred to as mitogen-activated protein kinase (MAPK)-activated protein kinase (MAPKAPK)-5, is a ubiquitously expressed serine/threonine kinase regulated by p38α and p38β MAP kinases. Activated JNK, p38γ or p38δ are unable to induce phosphorylation of PRAK *in vitro*. Phosphorylation of PRAK occurs *in vivo* in response to p38 activation by stress-related extracellular stimuli including UV light, oxidation and proinflammatory cytokines. Two other substrates for p38, MAPKAPK-2 and MAPKAPK-3/3pK, share approximately 45% sequence homology with PRAK including the phosphorylation motif recognized by p38, Lys-X-Thr-Pro. Activated PRAK has been shown to specifically phosphorylate HSP 27 *in vitro,* suggesting that the protein may play a role in stress-induced small heat shock protein phosphorylation *in vivo*.

REFERENCES

1. Stokoe, D., et al. 1992. MAPKAP kinase-2; a novel protein kinase activated by mitogen-activated protein kinase. EMBO J. 11: 3985-3994.
2. Raingeaud, J., et al. 1995. Pro-inflammatory cytokines and environmental stress cause p38 mitogen-activated protein kinase activation by dual phosphorylation on tyrosine and threonine. J. Biol. Chem. 270: 7420-7426.
3. McLaughlin, M.M., et al. 1996. Identification of mitogen-activated protein (MAP) kinase-activated protein kinase-3, a novel substrate of CSBp p38 MAP kinase. J. Biol. Chem. 271: 8488-8492.
4. New, L., et al. 1998. PRAK, a novel protein kinase regulated by the p38 MAP kinase. EMBO J. 17: 3372-3384.
5. Ni, H., et al. 1998. MAPKAPK-5, a novel mitogen-activated protein kinase (MAPK)-activated protein kinase, is a substrate of the extracellular-regulated kinase (ERK) and p38 kinase. Biochem. Biophys. Res. Commun. 243: 492-496.
6. New, L., et al. 2003. Regulation of PRAK subcellular location by p38 MAP kinases. Mol. Biol. Cell 14: 2603-2616.
7. Gerits, N., et al. 2007. Transgenic mice expressing constitutive active MAPKAPK-5 display gender-dependent differences in exploration and activity. Behav. Brain Funct. 3: 58.
8. Sun, P., et al. 2007. PRAK is essential for ras-induced senescence and tumor suppression. Cell 128: 295-308.
9. Li, Q., et al. 2008. Determinants that control the distinct subcellular localization of p38α-PRAK and p38β-PRAK complexes. J. Biol. Chem. 283: 11014-11023.

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 for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: MAPKAPK5 (human) mapping to 12q24.12.

PRODUCT

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

APPLICATIONS

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

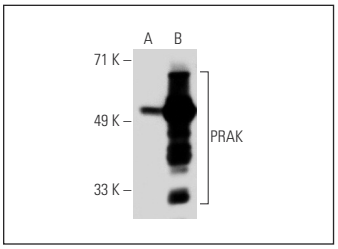
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PRAK (A-7): sc-46667 is recommended as a positive control antibody for Western Blot analysis of enhanced human PRAK expression in PRAK transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



PRAK (A-7): sc-46667. Western blot analysis of PRAK expression in non-transfected: sc-117752 (**A**) and human PRAK transfected: sc-116012 (**B**) 293T whole cell lysates.

RESEARCH USE

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