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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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SANTA CRUZ BIOTECHNOLOGY, INC.

14-3-3 σ (h): 293T Lysate: sc-175742

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

14-3-3 proteins regulate many cellular processes relevant to cancer biology, notably apoptosis, mitogenic signaling and cell-cycle checkpoints. Seven isoforms, denoted 14-3-3 β, γ, ε, ζ, η, θ and σ, comprise this family of signaling intermediates. 14-3-3 σ, also known as SFN, stratifin, HME1 or YWHAS, is a secreted adaptor protein that is involved in regulating both general and specific signaling pathways. Expressed predominately in stratified squamous keratinising epithelium, 14-3-3 σ is able to bind and modify the activity of a large number of proteins, such as KRT17 (keratin 17), through recognition of a phosphothreonine or phosphoserine motif. When bound to KRT17, for example, 14-3-3 σ acts to stimulate the Akt/mTOR signaling pathway by upregulating protein synthesis and cell growth. 14-3-3 σ also functions to positively mediate IGF-I-induced cell cycle progression and can bind to a variety of translation initiation factors, thus controlling mitotic translation. In response to tumor growth, 14-3-3 σ positively regulates the tumor suppressor p53 and increases the rate of p53-regulated inhibition of G_2/M cell cycle progression. Multiple isoforms of 14-3-3 σ exist due to alternative splicing events.

REFERENCES

1. Yang, H.Y., Wen, Y.Y., Chen, C.H., Lozano, G. and Lee, M.H. 2003. 14-3-3 σ positively regulates p53 and suppresses tumor growth. Mol. Cell. Biol. 23: 7096-7107.
2. Wilker, E.W., Grant, R.A., Artim, S.C. and Yaffe, M.B. 2005. A structural basis for 14-3-3 σ functional specificity. J. Biol. Chem. 280: 18891-18898.
3. Pulukuri, S.M. and Rao, J.S. 2006. CpG island promoter methylation and silencing of 14-3-3 σ gene expression in LNCaP and Tramp-C1 prostate cancer cell lines is associated with methyl-CpG-binding protein MBD2. Oncogene 25: 4559-4572.
4. Yang, H., Zhao, R. and Lee, M.H. 2006. 14-3-3 σ, a p53 regulator, suppresses tumor growth of nasopharyngeal carcinoma. Mol. Cancer Ther. 5: 253-260.
5. Losi-Guembarovski, R., Kuasne, H., Guembarovski, A.L., Rainho, C.A. and Cólus, I.M. 2007. DNA methylation patterns of the CDH1, RARB, and SFN genes in choroid plexus tumors. Cancer Genet. Cytogenet. 179: 140-145.
6. Bhawal, U.K., Tsukinoki, K., Sasahira, T., Sato, F., Mori, Y., Muto, N., Sugiyama, M. and Kuniyasu, H. 2007. Methylation and intratumoural heterogeneity of 14-3-3 σ in oral cancer. Oncol. Rep. 18: 817-824.
7. Ide, M., Saito, K., Tsutsumi, S., Tsuboi, K., Yamaguchi, S., Asao, T., Kuwano, H. and Nakajima, T. 2007. Overexpression of 14-3-3 σ in budding colorectal cancer cells modulates cell migration in the presence of Tenascin-C. Oncol. Rep. 18: 1451-1456.
8. Li, Y., Lin, X., Kilani, R.T., Jones, J.C. and Ghahary, A. 2007. 14-3-3 σ isoform interacts with the cytoplasmic domain of the transmembrane BP180 in keratinocytes. J. Cell. Physiol. 212: 675-681.
9. Wilker, E.W., van Vugt, M.A., Artim, S.A., Huang, P.H., Petersen, C.P., Reinhardt, H.C., Feng, Y., Sharp, P.A., Sonenberg, N., White, F.M. and Yaffe, M.B. 2007. 14-3-3 σ controls mitotic translation to facilitate cytokinesis. Nature 446: 329-332.

CHROMOSOMAL LOCATION

Genetic locus: SFN (human) mapping to 1p36.11.

PRODUCT

14-3-3 σ (h): 293T Lysate represents a lysate of human 14-3-3 σ transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

14-3-3 σ (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive 14-3-3 σ 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.