SANTA CRUZ BIOTECHNOLOGY, INC.

iASPP (49.3): sc-53864

BACKGROUND

Apoptosis stimulating protein of p53 (ASPP) is a family of proteins that act as regulators of apoptosis via their interactions with p53. ASPP1 and ASPP2 are both members of the ASPP family that regulate p53 by enhancing its transactivation function and binding to proapoptotic genes. iASPP, is the third member of the ASPP family and is considered inhibitory as it negatively regulates p53. iASPP is the most evolutionarily conserved inhibitor of p53 induced apoptosis. Expression of iASPP is upregulated in human breast carcinomas that express wildtype p53. Overexpression of iASPP may play a role in leukemogenesis and progression of acute leukemia. Inhibiting iASPP may be an effective strategy for treating tumors expressing wildtype p53.

REFERENCES

1. Sasaki, H., Sheng, Y., Kotsuji, F. and Tsang, B.K. 2000. Downregulation of X-linked inhibitor of apoptosis protein induces apoptosis in chemoresistant human ovarian cancer cells. Cancer Res. 60: 5659-5666.
2. Butt, A.J., Firth, S.M., King, M.A. and Baxter, R.C. 2000. Insulin-like growth factor-binding protein-3 modulates expression of Bax and Bcl-2 and potentiates p53-independent radiation-induced apoptosis in human breast cancer cells. J. Biol. Chem. 275: 39174-39181.
3. Samuels-Lev, Y., O'Connor, D.J., Bergamaschi, D., Trigiante, G., Hsieh, J.K., Zhong, S., Campargue, I., Naumovski, L., Crook, T. and Lu, X. 2001. ASPP proteins specifically stimulate the apoptotic function of p53. Mol. Cell 8: 781-794.
4. Slee, E.A., Gillotin, S., Bergamaschi, D., Royer, C., Llanos, S., Ali, S., Jin, B., Trigiante, G. and Lu, X. 2004. The N-terminus of a novel isoform of human iASPP is required for its cytoplasmic localization. Oncogene 23: 9007-9016.
5. Zhang, X., Wang, M., Zhou, C., Chen, S. and Wang, J. 2005. The expression of iASPP in acute leukemias. Leuk. Res. 29: 179-183.
6. Bergamaschi, D., Samuels, Y., Zhong, S. and Lu, X. 2005. MDM2 and MDMX prevent ASPP1 and ASPP2 from stimulating p53 without targeting p53 for degradation. Oncogene 24: 3836-3841.

CHROMOSOMAL LOCATION

Genetic locus: PPP1R13L (human) mapping to 19q13.32.

SOURCE

iASPP (49.3) is a mouse monoclonal antibody raised against recombinant iASPP corresponding to amino acids 459-639 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 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.

APPLICATIONS

iASPP (49.3) is recommended for detection of iASPP of human origin by immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for iASPP siRNA (h): sc-72100, iASPP shRNA Plasmid (h): sc-72100-SH and iASPP shRNA (h) Lentiviral Particles: sc-72100-V.

Molecular Weight of iASPP: 89 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

SELECT PRODUCT CITATIONS

1. Liu, W.K., Jiang, X.Y., Ren, J.K. and Zhang, Z.X. 2010. Expression pattern of the ASPP family members in endometrial endometrioid adenocarcinoma. Onkologie 33: 500-503.
2. Dong, P., Xiong, Y., Watari, H., Hanley, S.J., Konno, Y., Ihira, K., Suzuki, F., Yamada, T., Kudo, M., Yue, J. and Sakuragi, N. 2016. Suppression of iASPP-dependent aggressiveness in cervical cancer through reversal of methylation silencing of microRNA-124. Sci. Rep. 6: 35480.

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.