SANTA CRUZ BIOTECHNOLOGY, INC.

APIP (H-72): sc-292256

BACKGROUND

APIP (Apaf-1-interacting protein), also known as APIP2, is a member of the aldolase class II family and has a highly conserved C-terminal from *C. elegans* to humans. It is ubiquitously expressed, with high expression levels in heart, kidney and skeletal muscle. Alternative splicing produces two isoforms of APIP. Isoform 1 is the full length, 242 amino acid protein; isoform 2 is missing residues 1-38 and contains a distinct sequence for amino acids 39-53. APIP plays an important role in preventing muscle ischemic damage. It suppresses hypoxia-induced cell death by inducing the activation of Akt and ERK 1/2, which are responsible for inhibition of caspase-9 via phosphorylation, and competing with caspase-9 to bind the caspase recruitment domain (CARD) of Apaf-1. Through these mechanisms, APIP negatively regulates the activation of caspase-9 and Apaf-1-mediated cell death.

REFERENCES

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3. Cho, D.H., Hong, Y.M., Lee, H.J., Woo, H.N., Pyo, J.O., Mak, T.W. and Jung, Y.K. 2004. Induced inhibition of ischemic/hypoxic injury by APIP, a novel Apaf-1-interacting protein. J. Biol. Chem. 279: 39942-39950.
4. Anichini, A., Mortarini, R., Sensi, M. and Zanon, M. 2006. Apaf-1 signaling in human melanoma. Cancer Lett. 238: 168-179.
5. Schafer, Z.T. and Kornbluth, S. 2006. The apoptosome: physiological, developmental and pathological modes of regulation. Dev. Cell 10: 549-561.
6. Cho, D.H., Lee, H.J., Kim, H.J., Hong, S.H., Pyo, J.O., Cho, C. and Jung, Y.K. 2007. Suppression of hypoxic cell death by APIP-induced sustained activation of Akt and ERK 1/2. Oncogene 26: 2809-2814.

CHROMOSOMAL LOCATION

Genetic locus: APIP (human) mapping to 11p13; Apip (mouse) mapping to 2 E2.

SOURCE

APIP (H-72) is a rabbit polyclonal antibody raised against amino acids 171-242 mapping at the C-terminus of APIP of human origin.

PRODUCT

Each vial contains 200 µg IgG 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

APIP (H-72) is recommended for detection of APIP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

APIP (H-72) is also recommended for detection of APIP in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for APIP siRNA (h): sc-61976, APIP siRNA (m): sc-61977, APIP shRNA Plasmid (h): sc-61976-SH, APIP shRNA Plasmid (m): sc-61977-SH, APIP shRNA (h) Lentiviral Particles: sc-61976-V and APIP shRNA (m) Lentiviral Particles: sc-61977-V.

Molecular Weight of APIP: 27 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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