

API5 (T-14): sc-167096

BACKGROUND

API5 (apoptosis inhibitor 5), also known as AAC11 (antiapoptosis clone 11 protein), FIF (fibroblast growth factor 2-interacting factor), MIG8, XAGL or API5L1, is a widely expressed antiapoptotic nuclear protein that is highly conserved from flies to humans. API5 contains a nuclear localization sequence, an LxxLL motif, a leucine zipper domain and a transactivation domain flanked by two acidic domains. API5 forms a nuclear localized complex with FGF-2 and may mediate FGF-2-dependent signaling. API5 is believed to function as a transcription regulator and is able to regulate the synthesis of MMP-2 (matrix metalloproteinase-2). In addition, API5 is known to specifically suppress E2F-dependent apoptosis. It is expressed in a variety of cancer cell lines and its expression is linked to tumor progression and the degree of malignancy.

REFERENCES

1. Tewari, M., Yu, M., Ross, B., Dean, C., Giordano, A. and Rubin, R. 1997. AAC-11, a novel cDNA that inhibits apoptosis after growth factor withdrawal. *Cancer Res.* 57: 4063-4069.
2. Lu, K.P. and Ramos, K.S. 1998. Identification of genes differentially expressed in vascular smooth muscle cells following benzo[a]pyrene challenge: implications for chemical atherogenesis. *Biochem. Biophys. Res. Commun.* 253: 828-833.
3. Gianfrancesco, F., Esposito, T., Ciccodicola, A., D'Esposito, M., Mazzarella, R., D'Urso, M. and Forabosco, A. 1999. Molecular cloning and fine mapping of API5L1, a novel human gene strongly related to an antiapoptotic gene. *Cytogenet. Cell Genet.* 84: 164-166.
4. Van den Berghe, L., Laurell, H., Huez, I., Zanibellato, C., Prats, H. and Bugler, B. 2000. FIF [fibroblast growth factor-2 (FGF-2)-interacting-factor], a nuclear putatively antiapoptotic factor, interacts specifically with FGF-2. *Mol. Endocrinol.* 14: 1709-1724.
5. Kim, J.W., Cho, H.S., Kim, J.H., Hur, S.Y., Kim, T.E., Lee, J.M., Kim, I.K. and Namkoong, S.E. 2000. AAC-11 overexpression induces invasion and protects cervical cancer cells from apoptosis. *Lab. Invest.* 80: 587-594.
6. Sasaki, H., Moriyama, S., Yukiue, H., Kobayashi, Y., Nakashima, Y., Kaji, M., Fukai, I., Kiriya, M., Yamakawa, Y. and Fujii, Y. 2001. Expression of the antiapoptosis gene, AAC-11, as a prognosis marker in non-small cell lung cancer. *Lung Cancer* 34: 53-57.
7. Morris, E.J., Michaud, W.A., Ji, J.Y., Moon, N.S., Rocco, J.W. and Dyson, N.J. 2006. Functional identification of Api5 as a suppressor of E2F-dependent apoptosis *in vivo*. *PLoS Genet.* 2: e196-e196.
8. Krejci, P., Pejchalova, K., Rosenbloom, B.E., Rosenfelt, F.P., Tran, E.L., Laurell, H. and Wilcox, W.R. 2007. The antiapoptotic protein Api5 and its partner, high molecular weight FGF2, are upregulated in B cell chronic lymphoid leukemia. *J. Leukoc. Biol.* 82: 1363-1364.

CHROMOSOMAL LOCATION

Genetic locus: API5 (human) mapping to 11p12; Api5 (mouse) mapping to 2 E1.

SOURCE

API5 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of API5 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.

Blocking peptide available for competition studies, sc-167096 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

API5 (T-14) is recommended for detection of API5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for API5 siRNA (h): sc-96495, API5 siRNA (m): sc-141153, API5 shRNA Plasmid (h): sc-96495-SH, API5 shRNA Plasmid (m): sc-141153-SH, API5 shRNA (h) Lentiviral Particles: sc-96495-V and API5 shRNA (m) Lentiviral Particles: sc-141153-V.

Molecular Weight of API5: 55 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. 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 or our catalog for detailed protocols and support products.