

API5 (Z-18): sc-101203

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., et al. 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., et al. 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., et al. 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., et al. 2000. AAC-11 overexpression induces invasion and protects cervical cancer cells from apoptosis. *Lab. Invest.* 80: 587-594.
6. Sasaki, H., et al. 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., et al. 2006. Functional identification of Api5 as a suppressor of E2F-dependent apoptosis *in vivo*. *PLoS Genet.* 2: e196.
8. Krejci, P., et al. 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.

SOURCE

API5 (Z-18) is a mouse monoclonal antibody raised against recombinant API5 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

API5 (Z-18) is recommended for detection of API5 of 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), immunohistochemistry (including paraffin-embedded sections) (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 shRNA Plasmid (h): sc-96495-SH and API5 shRNA (h) Lentiviral Particles: sc-96495-V.

Molecular Weight of API5: 55 kDa.

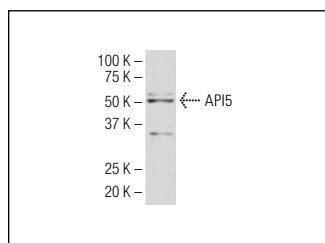
Positive Controls: HeLa nuclear extract: sc-2120.

RECOMMENDED SUPPORT REAGENTS

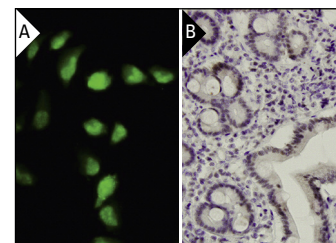
To ensure optimal results, the following support reagents are recommended:

- 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, 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



API5 (Z-18): sc-101203. Western blot analysis of API5 expression in HeLa nuclear extract.



API5 (Z-18): sc-101203. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear and cytoplasmic localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human small intestine tissue showing nuclear localization (B).

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 for detailed protocols and support products.