

API5 (E-12): sc-374528

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., et al. 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.

CHROMOSOMAL LOCATION

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

SOURCE

API5 (E-12) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of API5 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

API5 (E-12) is available conjugated to agarose (sc-374528 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374528 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374528 PE), fluorescein (sc-374528 FITC), Alexa Fluor® 488 (sc-374528 AF488), Alexa Fluor® 546 (sc-374528 AF546), Alexa Fluor® 594 (sc-374528 AF594) or Alexa Fluor® 647 (sc-374528 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374528 AF680) or Alexa Fluor® 790 (sc-374528 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

API5 (E-12) is recommended for detection of API5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

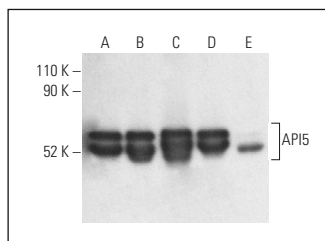
Molecular Weight of API5: 55 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181, A549 cell lysate: sc-2413 or K-562 whole cell lysate: sc-2203.

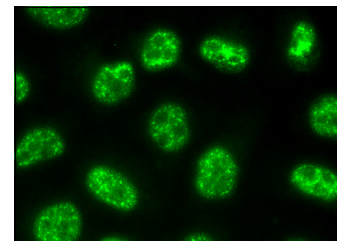
RECOMMENDED SUPPORT REAGENTS

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, UltraCruz® Blocking Reagent: sc-516214 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 (E-12): sc-374528. Western blot analysis of API5 expression in Y79 (A) and A549 (B) nuclear extracts, NTERA-2 cl.D1 (C) and K-562 (D) whole cell lysates and human bladder tissue extract (E). Detection reagent used: m-IgG₁ BP-HRP: sc-525408.



API5 (E-12): sc374528. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Matsuzawa-Ishimoto, Y., et al. 2022. The γδ IEL effector API5 masks genetic susceptibility to Paneth cell death. *Nature* 610: 547-554.

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.