

# EAPP (FL-285): sc-135138

## BACKGROUND

E2F transcription factors play a major role in apoptosis and cell proliferation and are found to be frequently deregulated in cancers. Through interactions with cell cycle regulators such as cyclins, cyclin-dependent kinases and retinoblastoma protein (Rb), E2F family members also integrate cell cycle progression. EAPP (E2F-associated phosphoprotein) is a 285 amino acid highly phosphorylated nuclear protein that fine-tunes E2F activities by interacting with E2F-1, E2F-2 and E2F-3, but not E2F-4. By binding to the N-terminal domain of these E2F family members, EAPP interferes with the binding of cyclin A, Sp1 transcription factors, EBP1 and EBP2, therefore influencing E2F activity. Interestingly, EAPP is expressed during the cell cycle, but disappears during mitosis, suggesting that this step is necessary to complete the cell cycle. EAPP is ubiquitously expressed, with highest levels found in placenta, pancreas, skeletal muscle and heart.

## REFERENCES

- Ivey-Hoyle, M., Conroy, R., Huber, H.E., Goodhart, P.J., Oliff, A. and Heimbrook, D.C. 1993. Cloning and characterization of E2F-2, a novel protein with the biochemical properties of transcription factor E2F. *Mol. Cell. Biol.* 13: 7802-7812.
- Karlseder, J., Rotheneder, H. and Wintersberger, E. 1996. Interaction of Sp1 with the growth- and cell cycle-regulated transcription factor E2F. *Mol. Cell. Biol.* 16: 1659-1667.
- Oswald, F., Dobner, T. and Lipp, M. 1996. The E2F transcription factor activates a replication-dependent human H2A gene in early S phase of the cell cycle. *Mol. Cell. Biol.* 16: 1889-1895.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609486. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Araki, K., Nakajima, Y., Eto, K. and Ikeda, M.A. 2003. Distinct recruitment of E2F family members to specific E2F-binding sites mediates activation and repression of the E2F1 promoter. *Oncogene* 22: 7632-7641.

## CHROMOSOMAL LOCATION

Genetic locus: EAPP (human) mapping to 14q13.1; Eapp (mouse) mapping to 12 C1.

## SOURCE

EAPP (FL-285) is a rabbit polyclonal antibody raised against amino acids 1-285 representing full length EAPP 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

EAPP (FL-285) is recommended for detection of EAPP 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).

EAPP (FL-285) is also recommended for detection of EAPP in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for EAPP siRNA (h): sc-92116, EAPP siRNA (m): sc-143265, EAPP shRNA Plasmid (h): sc-92116-SH, EAPP shRNA Plasmid (m): sc-143265-SH, EAPP shRNA (h) Lentiviral Particles: sc-92116-V and EAPP shRNA (m) Lentiviral Particles: sc-143265-V.

Molecular Weight (predicted) of EAPP: 33 kDa.

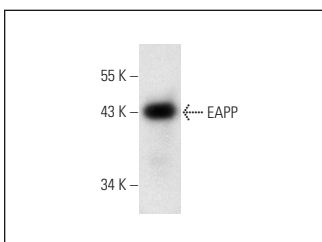
Molecular Weight (observed) of EAPP: 44 kDa.

Positive Controls: MIA PaCa-2 cell lysate: sc-2285.

## 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.

## DATA



EAPP (FL-285): sc-135138. Western blot analysis of EAPP expression in MIA PaCa-2 whole cell lysate.

## RESEARCH USE

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

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Try **EAPP (C-9): sc-365756** or **EAPP (1E4): sc-130357**, our highly recommended monoclonal alternatives to EAPP (FL-285).