SANTA CRUZ BIOTECHNOLOGY, INC.

EAP1 (C-9): sc-514772

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

EAP1 (enhanced at puberty protein 1), also known as IRF2BPL (interferon regulatory factor 2 binding protein-like) or C14orf4, is a 796 amino acid protein belonging to the IRF2BP family. Localizing to nucleus, EAP1 is highly expressed in heart, with moderate expression in skeletal muscle and pancreas, and weak expression found in brain, kidney, liver, testis, thyroid gland and lymphocytes. Expression levels of EAP1 increase during puberty, notably in medial basal hypothalamus. Thought to contribute to female reproductive function as an upstream transcriptional regulator of neuronal networks, EAP1 may also participate in gene transcription as an activator of GnRH I promoter and as a repressor of the synenkephalin promoter.The gene encoding EAP1 maps to human chromosome 14q24.3. Chromosome 14 contains about 700 genes and 106 million base pairs and makes up about 3.5% of human cellular DNA.

REFERENCES

1. Rampazzo, A., et al. 2000. Characterization of C14orf4, a novel intronless human gene containing a polyglutamine repeat, mapped to the ARVD1 critical region. Biochem. Biophys. Res. Commun. 278: 766-774.
2. Heilig, R., et al. 2003. The DNA sequence and analysis of human chromosome 14. Nature 421: 601-607.
3. Drögemüller, C., et al. 2004. Mapping of the bovine homologue of the human chromosome 14 open reading frame 4 gene to BTA10q36. Anim. Genet. 35: 498-499.
4. Li, F., et al. 2007. Eap1p, an adhesin that mediates *Candida albicans* biofilm formation *in vitro* and *in vivo*. Eukaryot. Cell 6: 931-939.
5. Heger, S., et al. 2007. Enhanced at puberty 1 is a new transcriptional regulator of the female neuroendocrine reproductive axis. J. Clin. Invest. 117: 2145-2154.

CHROMOSOMAL LOCATION

Genetic locus: IRF2BPL (human) mapping to 14q24.3; Irf2bpl (mouse) mapping to 12 D2.

SOURCE

EAP1 (C-9) is a mouse monoclonal antibody raised against amino acids 470-532 mapping within an internal region of EAP1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EAP1 (C-9) is available conjugated to agarose (sc-514772 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514772 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514772 PE), fluorescein (sc-514772 FITC), Alexa Fluor® 488 (sc-514772 AF488), Alexa Fluor® 546 (sc-514772 AF546), Alexa Fluor® 594 (sc-514772 AF594) or Alexa Fluor® 647 (sc-514772 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514772 AF680) or Alexa Fluor® 790 (sc-514772 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

EAP1 (C-9) is recommended for detection of EAP1 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 EAP1 siRNA (h): sc-92164, EAP1 siRNA (m): sc-140455, EAP1 shRNA Plasmid (h): sc-92164-SH, EAP1 shRNA Plasmid (m): sc-140455-SH, EAP1 shRNA (h) Lentiviral Particles: sc-92164-V and EAP1 shRNA (m) Lentiviral Particles: sc-140455-V.

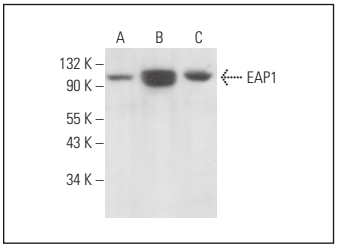
Molecular Weight of EAP1: 83 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, MCF7 nuclear extract: sc-2149 or K-562 nuclear extract: sc-2130.

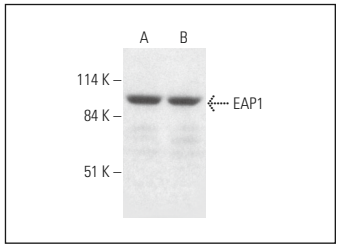
RECOMMENDED SUPPORT REAGENTS

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



EAP1 (C-9): sc-514772. Western blot analysis of EAP1 expression in MDA-MB-231 (**A**), NIH/3T3 (**B**) and KNRK (**C**) whole cell lysates.



EAP1 (C-9): sc-514772. Western blot analysis of EAP1 expression in MCF7 (**A**) and K-562 (**B**) nuclear extracts.

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.