SANTA CRUZ BIOTECHNOLOGY, INC.

HSPC117/FAAP (C-3): sc-393966

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

HSPC117, also known as C22orf28, is a 505 amino acid protein that is encoded by a gene which maps to human chromosome 22. A highly homologous protein identified in rodents, FAAP (focal adhesion associated protein), encoded by murine D10Wsu52e gene, has been suggested to play a role in regulating cell adhesion dynamics. Chromosome 22 houses over 500 genes and is the second smallest human chromosome. Mutations in several of the genes that map to chromosome 22 are involved in the development of Phelan-McDermid syndrome, neurofibromatosis type 2, autism and schizophrenia. Additionally, translocations between chromosomes 9 and 22 may lead to the formation of the Philadelphia chromosome and the subsequent production of the novel fusion protein Bcr-Abl, a potent cell proliferation activator found in several types of leukemias.

REFERENCES

1. Gilbert, F. 1998. Disease genes and chromosomes: disease maps of the human genome. Chromosome 22. Genet. Test. 2: 89-97.
2. Schwab, S.G. and Wildenauer, D.B. 1999. Chromosome 22 workshop report. Am. J. Med. Genet. 88: 276-278.
3. Tsilchorozidou, T., et al. 2004. Constitutional rearrangements of chromosome 22 as a cause of neurofibromatosis 2. J. Med. Genet. 41: 529-534.
4. Arinami, T. 2006. Analyses of the associations between the genes of 22q11 deletion syndrome and schizophrenia. J. Hum. Genet. 51: 1037-1045.
5. Paylor, R., et al. 2006. TBX1 haploinsufficiency is linked to behavioral disorders in mice and humans: implications for 22q11 deletion syndrome. Proc. Natl. Acad. Sci. USA 103: 7729-7734.
6. Zheng, X., et al. 2006. Bcr and its mutants, the reciprocal t(9;22)-associated Abl/Bcr fusion proteins, differentially regulate the cytoskeleton and cell motility. BMC Cancer 6: 262.

CHROMOSOMAL LOCATION

Genetic locus: RTCB (human) mapping to 22q12.3; Rtcb (mouse) mapping to 10 C1.

SOURCE

HSPC117/FAAP (C-3) is a mouse monoclonal antibody raised against amino acids 206-505 mapping at the C-terminus of HSPC117 of human origin.

PRODUCT

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

HSPC117/FAAP (C-3) is available conjugated to agarose (sc-393966 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393966 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393966 PE), fluorescein (sc-393966 FITC), Alexa Fluor® 488 (sc-393966 AF488), Alexa Fluor® 546 (sc-393966 AF546), Alexa Fluor® 594 (sc-393966 AF594) or Alexa Fluor® 647 (sc-393966 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393966 AF680) or Alexa Fluor® 790 (sc-393966 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

HSPC117/FAAP (C-3) is recommended for detection of HSPC117 of human origin and FAAP of mouse and rat 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), 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).

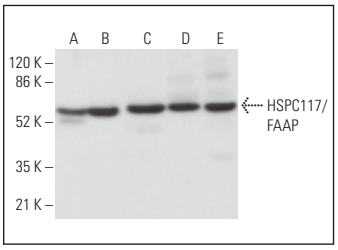
HSPC117/FAAP (C-3) is also recommended for detection of HSPC117 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HSPC117 siRNA (h): sc-75311, FAAP siRNA (m): sc-142776, HSPC117 shRNA Plasmid (h): sc-75311-SH, FAAP shRNA Plasmid (m): sc-142776-SH, HSPC117 shRNA (h) Lentiviral Particles: sc-75311-V and FAAP shRNA (m) Lentiviral Particles: sc-142776-V.

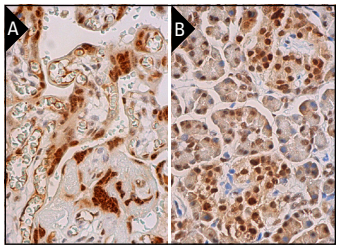
Molecular Weight of HSPC117/FAAP: 55 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, K-562 whole cell lysate: sc-2203 or rat heart extract: sc-2393.

DATA



HSPC117/FAAP (C-3): sc-393966. Western blot analysis of HSPC117/FAAP expression in Hep G2 (**A**), K-562 (**B**) and NIH/3T3 (**C**) whole cell lysates and rat heart (**D**) and rat liver (**E**) tissue extracts.



HSPC117/FAAP (C-3): sc-393966. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing nuclear staining of trophoblastic cells (**A**). Immunoperox-idase staining of formalin fixed, paraffin-embedded human pancreas tissue showing nuclear and cyto-plasmic staining of exocrine glandular cells and Islets of Langerhans (**B**).

SELECT PRODUCT CITATIONS

1. Ribeiro de Almeida, C., et al. 2018. RNA helicase DDX1 converts RNA G-quadruplex structures into R-loops to promote IgH class switch recombination. Mol. Cell 70: 650-662.e8.
2. Akiyama, Y., et al. 2022. RTCB complex regulates stress-induced tRNA cleavage. Int. J. Mol. Sci. 23: 13100.

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.