SANTA CRUZ BIOTECHNOLOGY, INC.

Vav (C-14): sc-132

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Vav gene was originally identified on the basis of its oncogenic activation during the course of gene transfer assays. The major translational product of the Vav proto-oncogene has been identified as a protein containing an array of structural motifs. Contained within its amino terminus are a helix-loop-helix domain and a leucine zipper motif similar to that of Myc family proteins; deletion of this region of p95Vav causes its oncogenic activation. In addition, p95Vav contains an SH2 domain, which could indicate its role as a substrate for tyrosine kinases. Expression of p95Vav is limited exclusively to cells of hematopoietic origin, including those of the erythroid, lymphoid and myeloid lineages. These results suggest that p95Vav may represent a new type of signal transduction molecule involved in the transduction of tyrosine phosphorylation signaling into transcriptional events.

CHROMOSOMAL LOCATION

Genetic locus: VAV1 (human) mapping to 19p13.3; Vav1 (mouse) mapping to 17 D.

SOURCE

Vav (C-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of Vav 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.

Vav (C-14) is available conjugated to agarose (sc-132 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; and to either phycoerythrin (sc-132 PE, 200 µg/ml), Alexa Fluor® 488 (sc-132 AF488, 200 µg/ml) or Alexa Fluor® 647 (sc-132 AF647, 200 µg/ml), for IF, IHC(P) and FCM.

In addition, Vav (C-14) is available conjugated to Alexa Fluor® 405 (sc-132 AF405), 100 µg/2 ml, for IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-132 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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APPLICATIONS

Vav (C-14) is recommended for detection of Vav p95 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), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Vav (C-14) is also recommended for detection of Vav p95 in additional species, including canine, bovine and porcine.

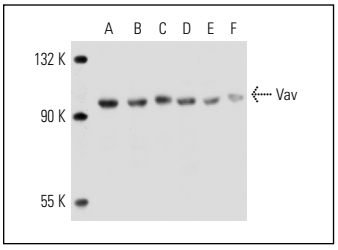
Suitable for use as control antibody for Vav siRNA (h): sc-29517, Vav siRNA (m): sc-29518, Vav shRNA Plasmid (h): sc-29517-SH, Vav shRNA Plasmid (m): sc-29518-SH, Vav shRNA (h) Lentiviral Particles: sc-29517-V and Vav shRNA (m) Lentiviral Particles: sc-29518-V.

Molecular Weight of Vav: 95 kDa.

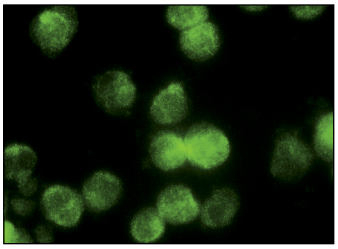
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Vav (C-14): sc-132. Western blot analysis of Vav expression in Jurkat (**A**), MOLT-4 (**B**), CTLL-2 (**C**), HL-60 (**D**), GM-CSF-treated K-562 (**E**) and CCRF-CEM (**F**) whole cell lysates.



Vav (C-14): sc-132. Immunofluorescence staining of methanol-fixed HUT 78 cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Katagiri, K., et al. 1996. Lyn and Fgr protein-tyrosine kinases prevent apoptosis during retinoic acid-induced granulocytic differentiation of HL-60 cells. J. Biol. Chem. 271: 11557-11562.
2. Song, S., et al. 2011. A requirement for the p85 PI3K adapter protein BCAP in the protection of macrophages from apoptosis induced by endoplasmic reticulum stress. J. Immunol. 187: 619-625.
3. Bertagnolo, V., et al. 2011. Vav1 is a crucial molecule in monocytic/macrophagic differentiation of myeloid leukemia-derived cells. Cell Tissue Res. 345: 163-175.
4. Bertagnolo, V., et al. 2011. Nuclear proteome analysis reveals a role of Vav1 in modulating RNA processing during maturation of tumoral promyelocytes. J. Proteomics 75: 398-409.
5. Zucchetto A., et al. 2012. The CD49d/CD29 complex is physically and functionally associated with CD38 in B-cell chronic lymphocytic leukemia cells. Leukemia 266: 1301-1312.
6. Roa, N.S., et al. 2013. The carboxy-terminal region of CD5 is required for c-Cbl mediated TCR signaling downmodulation in thymocytes. Biochem. Biophys. Res. Commun. 432: 52-59.
7. Du, M.J., et al. 2014. Estrogen induces Vav1 expression in human breast cancer cells. PLoS ONE 9: e99052.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **Vav (D-7): sc-8039** or **Vav (B-6): sc-55482**, our highly recommended monoclonal aternatives to Vav (C-14). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Vav (D-7): sc-8039**.