SANTA CRUZ BIOTECHNOLOGY, INC.

Vav (D-7): sc-8039

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. This protein, known as Vav, Vav1 or p95Vav, contains an N-terminal helix-loop-helix domain and a leucine zipper motif similar to that of Myc family proteins that, if deleted, causes oncogenic activation. In addition, Vav contains an SH2 domain, which could indicate its role as a substrate for tyrosine kinases. Expression of Vav is limited exclusively to cells of hematopoietic origin, including those of the erythroid, lymphoid and myeloid lineages. These results suggest that Vav 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 (D-7) is a mouse monoclonal antibody epitope corresponding to amino acids 110-320 mapping to a central domain of Vav p95 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.

Vav (D-7) is available conjugated to agarose (sc-8039 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-8039 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-8039 PE), fluorescein (sc-8039 FITC), Alexa Fluor® 488 (sc-8039 AF488), Alexa Fluor® 546 (sc-8039 AF546), Alexa Fluor® 594 (sc-8039 AF594) or Alexa Fluor® 647 (sc-8039 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-8039 AF680) or Alexa Fluor® 790 (sc-8039 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Vav (D-7) is recommended for detection of Vav p95 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:200-1:2,000), 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 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.

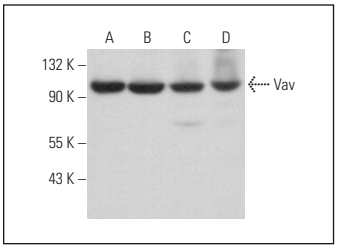
Molecular Weight of Vav: 95 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, MOLT-4 cell lysate: sc-2233 or CTLL-2 cell lysate: sc-2242.

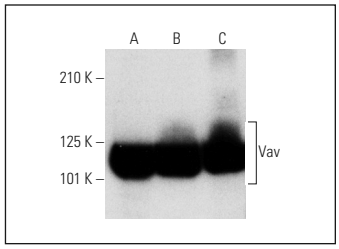
STORAGE

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

DATA



Vav (D-7): sc-8039. Western blot analysis of Vav expression in Jurkat (**A**), CCRF-CEM (**B**), MM-142 (**C**) and RAW 264.7 (**D**) whole cell lysates.



Vav (D-7): sc-8039. Western blot analysis of Vav expression in Jurkat (**A**), MOLT-4 (**B**) and CTLL-2 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Cherukuri, A., et al. 2004. The tetraspanin CD81 is necessary for partitioning of coligated CD19/CD21-B cell antigen receptor complexes into signaling-active lipid rafts. J. Immunol. 172: 370-380.
2. Hartman, A.D., et al. 2006. Constitutive c-Jun N-terminal kinase activity in acute myeloid leukemia derives from Flt3 and affects survival and proliferation. Exp. Hematol. 34: 1360-1376.
3. Dorn, T., et al. 2007. RhoH is important for positive thymocyte selection and T-cell receptor signaling. Blood 109: 2346-2355.
4. Saborit-Villarroya, I., et al. 2008. The adaptor 3BP2 activates CD244-mediated cytotoxicity in PKC- and SAP-dependent mechanisms. Mol. Immunol. 45: 3446-3453.
5. García-Bernal, D., et al. 2009. Chemokine-induced Zap70 kinase-mediated dissociation of the Vav1-talin complex activates $\alpha 4\beta 1$ Integrin for T cell adhesion. Immunity 31: 953-964.
6. Barda-Saad, M., et al. 2010. Cooperative interactions at the SLP-76 complex are critical for actin polymerization. EMBO J. 29: 2315-2328.
7. Barbarulo, A., et al. 2011. Notch3 and canonical NFκB signaling pathways cooperatively regulate Foxp3 transcription. J. Immunol. 186: 6199-6206.
8. Pauker, M.H., et al. 2012. Studying the dynamics of SLP-76, Nck, and Vav1 multimolecular complex formation in live human cells with triple-color FRET. Sci. Signal. 5: RS3.
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10. Zhang, C., et al. 2016. Glutaminase 2 is a novel negative regulator of small GTPase Rac1 and mediates p53 function in suppressing metastasis. Elife 5: e10727.

RESEARCH USE

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