SANTA CRUZ BIOTECHNOLOGY, INC.

DPF2 (C-9): sc-514297

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

DPF2 (D4, zinc and double PHD fingers family 2), also known as REQ (requiem), UBID4 or ubi-d4, is a 391 amino acid protein that is a member of the D4 domain family. DPF2, a ubiquitously expressed protein, localizes to the nucleus and contains one C_2H_2- and two PHD-type zinc finger motifs. DPF2 may function as a transcription factor that is necessary for apoptosis and may also play a role in the development and maturation of lymphoid cells. It is thought that, during apoptosis, DPF2 activity is inhibited by LRF (leukemia/lymphoma-related factor), which is up-regulated by Integrin. This suggests that DPF2 may be a potential target for future cancer therapies that induce apoptosis in leukemia cells.

REFERENCES

1. Gabig, T.G., et al. 1994. Requiem: a novel zinc finger gene essential for apoptosis in myeloid cells. J. Biol. Chem. 269: 29515-29519.
2. Gabig, T.G., et al. 1998. Expression and chromosomal localization of the Requiem gene. Mamm. Genome 9: 660-665.
3. Nabirochkina, E., et al. 2002. Expression pattern of dd4, a sole member of the d4 family of transcription factors in *Drosophila melanogaster*. Mech. Dev. 114: 119-123.
4. Astier, A.L., et al. 2003. Temporal gene expression profile of human precursor B leukemia cells induced by adhesion receptor: identification of pathways regulating B cell survival. Blood 101: 1118-1127.
5. Wong, D.C., et al. 2006. Targeting early apoptotic genes in batch and fed-batch CHO cell cultures. Biotechnol. Bioeng. 95: 350-361.

CHROMOSOMAL LOCATION

Genetic locus: DPF2 (human) mapping to 11q13.1; Dpf2 (mouse) mapping to 19 A.

SOURCE

DPF2 (C-9) is a mouse monoclonal antibody raised against amino acids 121-205 mapping within an internal region of DPF2 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.

DPF2 (C-9) is available conjugated to agarose (sc-514297 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514297 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514297 PE), fluorescein (sc-514297 FITC), Alexa Fluor® 488 (sc-514297 AF488), Alexa Fluor® 546 (sc-514297 AF546), Alexa Fluor® 594 (sc-514297 AF594) or Alexa Fluor® 647 (sc-514297 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514297 AF680) or Alexa Fluor® 790 (sc-514297 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

DPF2 (C-9) is recommended for detection of DPF2 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 DPF2 siRNA (h): sc-97031, DPF2 siRNA (m): sc-143156, DPF2 shRNA Plasmid (h): sc-97031-SH, DPF2 shRNA Plasmid (m): sc-143156-SH, DPF2 shRNA (h) Lentiviral Particles: sc-97031-V and DPF2 shRNA (m) Lentiviral Particles: sc-143156-V.

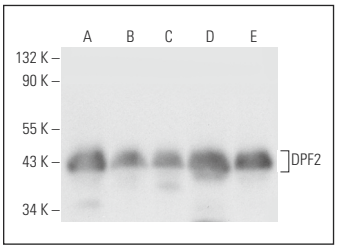
Molecular Weight of DPF2: 44 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HL-60 whole cell lysate: sc-2209 or K-562 whole cell lysate: sc-2203.

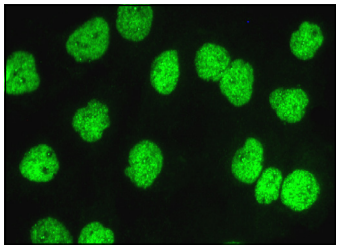
RECOMMENDED SUPPORT REAGENTS

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



DPF2 (C-9): sc-514297. Western blot analysis of DPF2 expression in Jurkat (**A**), LNCaP (**B**), HeLa (**C**), HL-60 (**D**) and K-562 (**E**) whole cell lysates.



DPF2 (C-9): sc-514297. Immunofluorescence staining of formalin-fixed A-431 cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Duplaquet, L., et al. 2024. Mammalian SWI/SNF complex activity regulates POU2F3 and constitutes a targetable dependency in small cell lung cancer. Cancer Cell 42: 1352-1369.e13.

STORAGE

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