SANTA CRUZ BIOTECHNOLOGY, INC.

DZIP3 (C-1): sc-514725

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Ubiquitination is an important mechanism through which three classes of enzymes act in concert to target short-lived or abnormal proteins for destruction. The three classes of enzymes involved in ubiquitination are the ubiquitin-activating enzymes (E1s), the ubiquitin-conjugating enzymes (E2s) and the ubiquitin-protein ligases (E3s). DZIP3 (DA Z-interacting protein 3, zinc finger), also known as UURF2 or hRUL138, is a 1,208 amino acid protein that localizes to the cytoplasm and contains one RING-type zinc finger. Expressed in a variety of tissues with highest expression in heart, skeletal muscle and kidney, DZIP3 functions as an E3 ubiquitin-protein ligase that accepts ubiquitin from an E2 ubiquitin-conjugating enzyme, thereby playing a role in signaling events throughout the cell. Multiple isoforms of DZIP3 exist due to alternative splicing events.

REFERENCES

1. Ciechanover, A. 1994. The ubiquitin-mediated proteolytic pathway: mechanisms of action and cellular physiology. Biol. Chem. Hoppe-Seyler 375: 565-581.
2. Ciechanover, A. and Schwartz, A.L. 1994. The ubiquitin-mediated proteolytic pathway: mechanisms of recognition of the proteolytic substrate and involvement in the degradation of native cellular proteins. FASEB J. 8: 182-191.
3. Borden, K.L. and Freemont, P.S. 1996. The RING finger domain: a recent example of a sequence-structure family. Curr. Opin. Struct. Biol. 6: 395-401.
4. Ishikawa, K., et al. 1998. Prediction of the coding sequences of unidentified human genes. X. The complete sequences of 100 new cDNA clones from brain which can code for large proteins *in vitro*. DNA Res. 5: 169-176.

CHROMOSOMAL LOCATION

Genetic locus: DZIP3 (human) mapping to 3q13.13; Dzip3 (mouse) mapping to 16 B5.

SOURCE

DZIP3 (C-1) is a mouse monoclonal antibody raised against amino acids 47-302 mapping near the N-terminus of DZIP3 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.

DZIP3 (C-1) is available conjugated to agarose (sc-514725 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514725 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514725 PE), fluorescein (sc-514725 FITC), Alexa Fluor® 488 (sc-514725 AF488), Alexa Fluor® 546 (sc-514725 AF546), Alexa Fluor® 594 (sc-514725 AF594) or Alexa Fluor® 647 (sc-514725 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514725 AF680) or Alexa Fluor® 790 (sc-514725 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

DZIP3 (C-1) is recommended for detection of DZIP3 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 DZIP3 siRNA (h): sc-78433, DZIP3 siRNA (m): sc-143214, DZIP3 shRNA Plasmid (h): sc-78433-SH, DZIP3 shRNA Plasmid (m): sc-143214-SH, DZIP3 shRNA (h) Lentiviral Particles: sc-78433-V and DZIP3 shRNA (m) Lentiviral Particles: sc-143214-V.

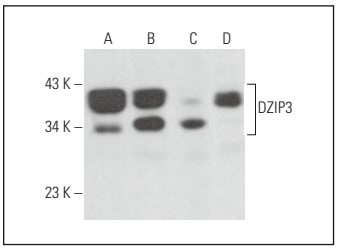
Molecular Weight of DZIP3 isoforms: 139/35 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, PANC-1 whole cell lysate: sc-364380 or HEK293T whole cell lysate: sc-45137.

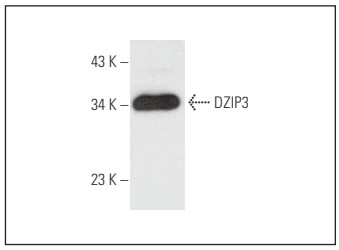
RECOMMENDED SUPPORT REAGENTS

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



DZIP3 (C-1): sc-514725. Western blot analysis of DZIP3 expression in PANC-1 (**A**), HEK293T (**B**) and NIH/3T3 (**C**) whole cell lysates and rat brain tissue extract (**D**).



DZIP3 (C-1): sc-514725. Western blot analysis of DZIP3 expression in Caki-1 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Akizuki, Y., et al. 2023. cIAP1-based degraders induce degradation via branched ubiquitin architectures. Nat. Chem. Biol. 19: 311-322.

STORAGE

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