

Dio-1 (B-9): sc-25264

BACKGROUND

Dio-1 (death inducer-obliator-1) is a putative transcription factor that contains two zinc finger motifs. Dio-1 translocates to the nucleus, and activates apoptosis during limb development. Programmed cell death, a highly regulated form of apoptosis, plays an important role in determining the amount of tissue, the shape and the definition of each digit during limb development. Dio-1 expression is upregulated when an apoptotic signal is detected, and subsequently apoptosis is induced. This process is similar to the expression of NFκB and NGF in response to external signals. Dio-1 expression is suppressed by caspase inhibitors and Bcl-2 expression. This supports the theory that Dio-1 functions in the onset of programmed cell death.

CHROMOSOMAL LOCATION

Genetic locus: DIDO1 (human) mapping to 20q13.33; Dido1 (mouse) mapping to 2 H4.

SOURCE

Dio-1 (B-9) is a mouse monoclonal antibody raised against amino acids 315-614 of Dio-1 of mouse 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.

Dio-1 (B-9) is available conjugated to agarose (sc-25264 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-25264 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-25264 PE), fluorescein (sc-25264 FITC), Alexa Fluor® 488 (sc-25264 AF488), Alexa Fluor® 546 (sc-25264 AF546), Alexa Fluor® 594 (sc-25264 AF594) or Alexa Fluor® 647 (sc-25264 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-25264 AF680) or Alexa Fluor® 790 (sc-25264 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Dio-1 (B-9) is recommended for detection of Dio-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), 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).

Suitable for use as control antibody for Dio-1 siRNA (h): sc-35194, Dio-1 siRNA (m): sc-35195, Dio-1 shRNA Plasmid (h): sc-35194-SH, Dio-1 shRNA Plasmid (m): sc-35195-SH, Dio-1 shRNA (h) Lentiviral Particles: sc-35194-V and Dio-1 shRNA (m) Lentiviral Particles: sc-35195-V.

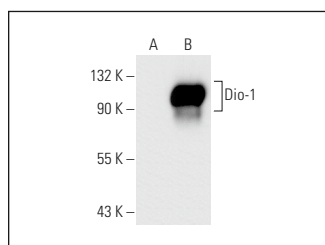
Molecular Weight of DIDO4/DIDO2/a isoforms: 244/129/61 kDa.

Positive Controls: Dio-1 (h2): 293T Lysate: sc-159185, Jurkat whole cell lysate: sc-2204 or Jurkat nuclear extract: sc-2132.

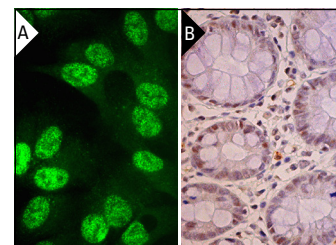
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Dio-1 (B-9): sc-25264. Western blot analysis of Dio-1 expression in non-transfected: sc-117752 (A) and human Dio-1 transfected: sc-159185 (B) 293T whole cell lysates.



Dio-1 (B-9): sc-25264. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing nuclear staining of glandular cells and endothelial cells (B).

SELECT PRODUCT CITATIONS

- Sillars-Hardebol, A.H., et al. 2012. CSE1L, DIDO1 and RBM39 in colorectal adenoma to carcinoma progression. *Cell. Oncol.* 35: 293-300.
- Braig, S. and Bosserhoff, A.K. 2013. Death inducer-obliator 1 (Dido1) is a BMP target gene and promotes BMP-induced melanoma progression. *Oncogene* 32: 837-848.
- Restelli, V., et al. 2015. Characterization of a mantle cell lymphoma cell line resistant to the Chk1 inhibitor PF-00477736. *Oncotarget* 6: 37229-37240.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.