

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 NF κ B 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 μ g 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 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-25264 HRP), 200 μ g/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 μ g/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 μ g/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 μ g per 100-500 μ g 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.

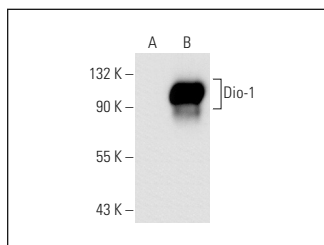
Molecular Weight of DIDO4/DIDO2/a isoforms: 244/129/61 kDa.

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

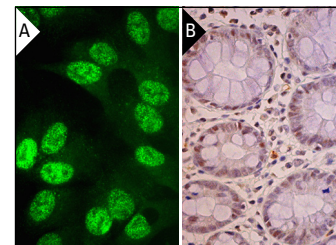
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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-IgG κ 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.