

# Dio-1 (E-16): sc-5892

## 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 $\kappa$ 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.

## REFERENCES

1. Martin, D.P., et al. 1988. Inhibitors of protein synthesis and RNA synthesis prevent neuronal death caused by nerve growth factor deprivation. *J. Cell Biol.* 106: 829-844.
2. Jacobson, M.D., et al. 1997. Programmed cell death in animal development. *Cell* 88: 347-354.

## CHROMOSOMAL LOCATION

Genetic locus: DATF1 (human) mapping to 20q13.33; Dido1 (mouse) mapping to 2 H4.

## SOURCE

Dio-1 (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Dio-1 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-5892 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Dio-1 (E-16) is recommended for detection of Dio-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

Dio-1 (E-16) is also recommended for detection of Dio-1 in additional species, including equine, canine, bovine and avian.

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.

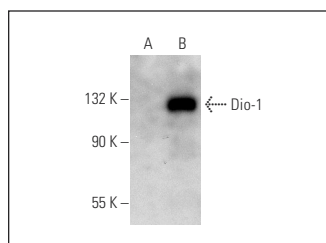
Molecular Weight of DIO4/DIO2/a isoforms: 244/129/61 kDa.

Positive Controls: Dio-1 (h): 293T Lysate: sc-176595, Jurkat whole cell lysate: sc-2204 or Jurkat nuclear extract: sc-2132.

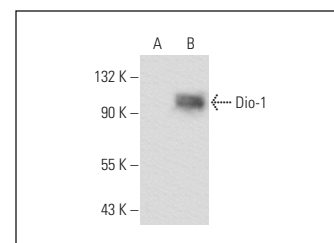
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Dio-1 (E-16): sc-5892. Western blot analysis of Dio-1 expression in non-transfected: sc-117752 (A) and human Dio-1 transfected: sc-176595 (B) 293T whole cell lysates.



Dio-1 (E-16): sc-5892. 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Satisfaction  
Guaranteed

Try **Dio-1 (B-9): sc-25264** or **Dio-1 (C-10): sc-393453**, our highly recommended monoclonal alternatives to Dio-1 (E-16).