

# DEDD (G-6): sc-271191

## BACKGROUND

Apoptosis is a physiological process by which multicellular organisms eliminate unwanted cells. DEDD (death effector domain-containing DNA binding protein) induces apoptosis by triggering a series of intracellular protein-protein interactions mediated by the N-terminal DED motif. DEDD, a cytoplasmic protein, translocates to the nucleus during CD95-mediated apoptosis, where it localizes to nucleoli-like structures, activates caspase-6 and specifically inhibits RNA polymerase I-dependent transcription. The cell death activity of DEDD relates to its nuclear localization. The DED in DEDD is sufficient for its DNA binding, caspase-6 activating and Pol I specific transcriptional repressor activity. Point specific mutations indicate that the DED in DEDD represents a novel domain that is structurally similar to other DEDs but functionally different from classical DEDs found in FADD or caspase-8. DEDD is widely expressed in a variety of tissues, with highest levels in the testis. The human DEDD gene maps to chromosome 1q23.3. Alternative splicing results in two transcript variants which encode the same protein.

## REFERENCES

1. Leo, C.P., et al. 1998. DEFT, a novel death effector domain-containing molecule predominantly expressed in testicular germ cells. *Endocrinology* 139: 4839-4848.
2. Stegh, A.H., et al. 1998. DEDD, a novel death effector domain-containing protein, targeted to the nucleolus. *EMBO J.* 17: 5974-5986.
3. Schickling, O., et al. 2001 Nuclear localization of DEDD leads to caspase-6 activation through its death effector domain and inhibition of RNA polymerase I dependent transcription. *Cell Death Differ.* 8: 1157-1168.
4. Alcivar, A., et al. 2003. DEDD and DEDD2 associate with caspase-8/10 and signal cell death. *Oncogene* 22: 291-297.

## CHROMOSOMAL LOCATION

Genetic locus: DEDD (human) mapping to 1q23.3; Dedd (mouse) mapping to 1 H3.

## SOURCE

DEDD (G-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 278-313 near the C-terminus of DEDD of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-271191 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## STORAGE

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

## APPLICATIONS

DEDD (G-6) is recommended for detection of DEDD 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).

DEDD (G-6) is also recommended for detection of DEDD in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for DEDD siRNA (h): sc-37383, DEDD siRNA (m): sc-37384, DEDD shRNA Plasmid (h): sc-37383-SH, DEDD shRNA Plasmid (m): sc-37384-SH, DEDD shRNA (h) Lentiviral Particles: sc-37383-V and DEDD shRNA (m) Lentiviral Particles: sc-37384-V.

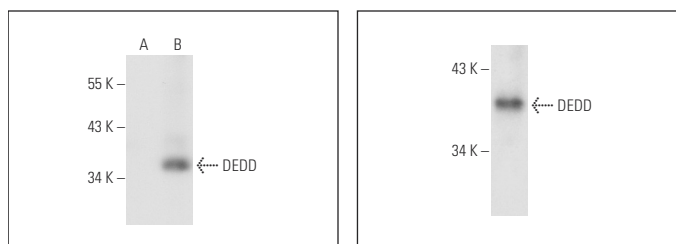
Molecular Weight of DEDD: 37 kDa.

Positive Controls: human PBL whole cell lysate or DEDD (m2): 293T Lysate: sc-119731.

## 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



DEDD (G-6): sc-271191. Western blot analysis of DEDD expression in non-transfected: sc-117752 (A) and mouse DEDD transfected: sc-119731 (B) 293T whole cell lysates.

DEDD (G-6): sc-271191. Western blot analysis of DEDD expression in human PBL whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Zhong, G., et al. 2013. Dynamically expressed microRNA-15b modulates the activities of CD8<sup>+</sup> T lymphocytes in mice with Lewis lung carcinoma. *J. Transl. Med.* 11: 71.

## RESEARCH USE

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