

DEDD (G-17): sc-27052

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. 2004. DEDD and DEDD2 associate with caspase-8/10 and signal cell death. *Oncogene* 22: 291-297.
5. LocusLink Report (LocusID: 9191). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

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

SOURCE

DEDD (G-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of DEDD of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-27052 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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-17) is recommended for detection of DEDD of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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-17) is also recommended for detection of DEDD in additional species, including equine, canine, bovine, porcine and avian.

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.

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) 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.

RESEARCH USE

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

PROTOCOLS

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