**BACKGROUND**

Cytotoxic T lymphocyte (CTL)-mediated cytotoxicity constitutes an important component of specific effector mechanisms in immunosurveillance against virus-infected or -transformed cells. Two mechanisms appear to account for this activity, one of which is the perforin-based process. Independently, a FAS-based mechanism involves the transducing molecule FAS (APO-1) and its ligand (FAS-L). The human FAS (APO-1) protein is a cell surface glycoprotein that belongs to a family of receptors that includes CD40, nerve growth factor receptors and tumor necrosis factor receptors. The FAS antigen is expressed on a broad range of lymphoid cell lines and is expressed at high levels in T cells subsequent to crosslinking of the T cell receptor (TCR). A previously undescribed protein, TDAG51, restores activation-induced apoptosis in cells that have lost the ability to display FAS in response to activation. Thus, TDAG51 plays a critical role in T cell apoptosis by coupling TCR stimulation to FAS expression.

**CHROMOSOMAL LOCATION**

Genetic locus: PHLDA1 (human) mapping to 12q21.2; Phlda1 (mouse) mapping to 10 D1.

**SOURCE**

TDAG51 (RN-6E2) is a mouse monoclonal antibody raised against TDAG51 of human origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TDAG51 (RN-6E2) is available conjugated to agarose (sc-23866 AC), 500 µg/0.25 ml agarose in 1 ml for IP; to HRP (sc-23866 HRP), 200 µg/ml for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-23866 PE), fluorescein (sc-23866 FITC), Alexa Fluor® 488 (sc-23866 AF488) or Alexa Fluor® 647 (sc-23866 AF647), 200 µg/ml for IF, IHC(P) and FCM.

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**APPLICATIONS**

TDAG51 (RN-6E2) is recommended for detection of TDAG51 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for TDAG51 siRNA (h): sc-36631, TDAG51 siRNA (m): sc-36632, TDAG51 shRNA Plasmid (h): sc-36631-SH, TDAG51 shRNA Plasmid (m): sc-36632-SH, TDAG51 shRNA (h) Lentiviral Particles: sc-36631-V and TDAG51 shRNA (m) Lentiviral Particles: sc-36632-V.

Molecular Weight of TDAG51: 44 kDa.

Positive Controls: HUV-EC-C whole cell lysate: sc-364180, A-375 cell lysate: sc-3811 or Hep G2 cell lysate: sc-2227.

**STORAGE**

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

**DATA**

**SELECT PRODUCT CITATIONS**

3. Kastrati, I., et al. 2015. PHLDA1 expression is controlled by an estrogen receptor-NFκB-miR-181 regulatory loop and is essential for formation of ER⁺ mammospheres Oncogene 34: 2309-2316.

**RESEARCH USE**

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