SANTA CRUZ BIOTECHNOLOGY, INC.

TDAG51 (RN-6E2): sc-23866

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 IgG_{2a} 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; to either phycoerythrin (sc-23866 PE), fluorescein (sc-23866 FITC), Alexa Fluor® 488 (sc-23866 AF488), Alexa Fluor® 546 (sc-23866 AF546), Alexa Fluor® 594 (sc-23866 AF594) or Alexa Fluor® 647 (sc-23866 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-23866 AF680) or Alexa Fluor® 790 (sc-23866 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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 10^6 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.

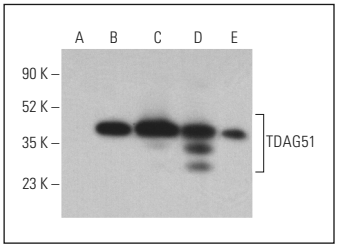
Molecular Weight of TDAG51: 44 kDa.

Positive Controls: TDAG51 (m): 293T Lysate: sc-123964.

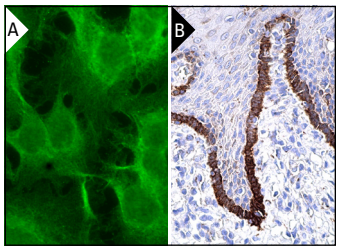
STORAGE

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

DATA



TDAG51 (RN-6E2): sc-23866. Western blot analysis of TDAG51 expression in non-transfected 293T: sc-117752 (**A**), mouse TDAG51 transfected 293T: sc-123964 (**B**), RT-4 (**C**), U-87 MG (**D**) and C6 (**E**) whole cell lysates. Detection reagent used: m-IgG_{2a} BP-HRP: sc-542731.



TDAG51 (RN-6E2): sc-23866. Immunofluorescence staining of methanol-fixed Hep G2 cells showing membrane localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of basal squamous epithelial cells (**B**).

SELECT PRODUCT CITATIONS

1. Neef, R., et al. 2002. Identification of the human PHLDA1/TDAG51 gene. Cancer Res. 62: 5920-5929.
2. Guezguez, A., et al. 2014. Modulation of stemness in a human normal intestinal epithelial crypt cell line by activation of the WNT signaling pathway. Exp. Cell Res. 322: 355-364.
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.
4. Molina-Ruiz, A.M., et al. 2016. Primitive follicular induction in molluscum contagiosum. J. Cutan. Pathol. 43: 12-17.
5. Weingertner, N., et al. 2017. Aggressive digital papillary adenocarcinoma: a clinicopathological study of 19 cases. J. Am. Acad. Dermatol. 77: 549-558.e1.
6. Chen, Y., et al. 2018. PHLDA1, another PHLDA family protein that inhibits Akt. Cancer Sci. 109: 3532-3542.
7. Leblebici, C., et al. 2019. CD10, TDAG51, CK20, AR, INSM1, and Nestin expression in the differential diagnosis of trichoblastoma and basal cell carcinoma. Int. J. Surg. Pathol. 27: 19-27.
8. Han, C., et al. 2020. PHLDA1 promotes microglia-mediated neuroinflammation via regulating K63-linked ubiquitination of TRAF6. Brain Behav. Immun. 88: 640-653.
9. Vydra, N., et al. 2021. Heat shock factor 1 (HSF1) cooperates with estrogen receptor α (ERα) in the regulation of estrogen action in breast cancer cells. Elife 10: e69843.

RESEARCH USE

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