SANTA CRUZ BIOTECHNOLOGY, INC.

TACE (B-6): sc-390859

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Tumor necrosis factor β (TNFβ), also known as lymphotoxin, is a pleiotropic cytokine. TNFα, also known as cachetin, is a cytokine that binds to the same receptors, producing an array of effects similar to those of TNFβ. TNFβ and TNFα share 30% amino acid homology and have similar biological activities. TNFβ is produced by activated lymphocytes, including $CD4^+$ T helper cell type 1 lymphocytes, $CD8^+$ lymphocytes and certain B lymphoblastoid cell lines. TNFα is produced by several different cell types, including lymphocytes, neutrophils and macrophages. TNFβ and TNFα can modulate many immune and inflammatory functions while having the ability to inhibit tumor growth. TACE (for TNFα converting enzyme) is a metalloproteinase that cleaves the membrane-bound TNFα precursor to release soluble TNFα.

CHROMOSOMAL LOCATION

Genetic locus: ADAM17 (human) mapping to 2p25.1.

SOURCE

TACE (B-6) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of TACE of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TACE (B-6) is available conjugated to agarose (sc-390859 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390859 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390859 PE), fluorescein (sc-390859 FITC), Alexa Fluor® 488 (sc-390859 AF488), Alexa Fluor® 546 (sc-390859 AF546), Alexa Fluor® 594 (sc-390859 AF594) or Alexa Fluor® 647 (sc-390859 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390859 AF680) or Alexa Fluor® 790 (sc-390859 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TACE (B-6) is recommended for detection of TACE precursor of 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); not recommended for detection of TACE of mouse or rat origin.

Suitable for use as control antibody for TACE siRNA (h): sc-36604, TACE shRNA Plasmid (h): sc-36604-SH and TACE shRNA (h) Lentiviral Particles: sc-36604-V.

Molecular Weight of glycosylated TACE: 120 kDa.

Molecular Weight of TACE active form: 80 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234, K-562 whole cell lysate: sc-2203 or MOLT-4 cell lysate: sc-2233.

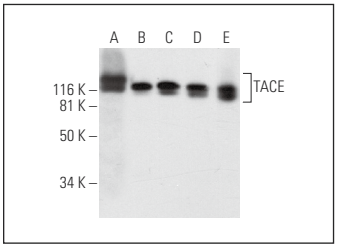
RESEARCH USE

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

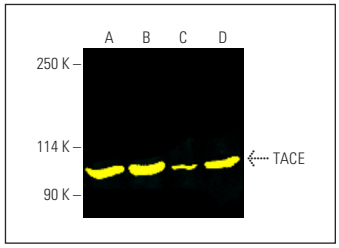
STORAGE

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

DATA



TACE (B-6): sc-390859. Western blot analysis of TACE expression in NAMALWA (**A**), K-562 (**B**), MOLT-4 (**C**), BJAB (**D**) and CCRF-HSB-2 (**E**) whole cell lysates.



TACE (B-6): sc-390859. Fluorescent western blot analysis of TACE expression in NAMALWA (**A**), K562 (**B**), MOLT-4 (**C**) and CCRF-HSB-2 (**D**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG Fc BP-CFL 488: sc-533653.

SELECT PRODUCT CITATIONS

1. Schäfer, M., et al. 2017. GRP78 protects a disintegrin and metalloprotease 17 against protein-disulfide isomerase A6 catalyzed inactivation. FEBS Lett. 591: 3567-3587.
2. Xing, Z., et al. 2018. Analysis of mutations in primary and metastatic synovial sarcoma. Oncotarget 9: 36878-36888.
3. Tutusaus, A., et al. 2019. A functional role of GAS6/TAM in nonalcoholic steatohepatitis progression implicates AXL as therapeutic target. Cell. Mol. Gastroenterol. Hepatol. 9: 349-368.
4. Omoteyama, K., et al. 2020. Identification of novel substrates of a disintegrin and metalloprotease 17 by specific labeling of surface proteins. Heliyon 6: e05804.
5. Fritsch, J., et al. 2021. Roles for ADAM17 in TNF-R1 mediated cell death and survival in human U937 and Jurkat cells. Cells 10: 3100.
6. Dang, L., et al. 2022. Downregulation of sperm-associated antigen 5 inhibits melanoma progression by regulating forkhead box protein M1/A disintegrin and metalloproteinase 17/NOTCH1 signaling. Bioengineered 13: 4744-4756.
7. Lee, J., et al. 2023. Coordination of canonical and noncanonical Hedgehog signalling pathways mediated by WDR11 during primordial germ cell development. Sci. Rep. 13: 12309.
8. Chan, Y.J., et al. 2023. Blue light exposure collapses the inner blood-retinal barrier by accelerating endothelial CLDN5 degradation through the disturbance of GNAZ and the activation of ADAM17. Fluids Barriers CNS 20: 31.

PROTOCOLS

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