SANTA CRUZ BIOTECHNOLOGY, INC.

β-TrCP (C-6): sc-390629

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

β-TrCP (β-tranducin repeats containing protein), also designated E3RSIkB or FWD1, and HOS (homologous to Slimb) are F-box proteins that function as substrate recognition subunits of ubiquitin ligases. HOS and β-TrCP differ in their amino terminal regions, but exhibit high homology within the F-box and WD40 repeat-containing regions. β-TrCP mediates ubiquitin/proteasome-dependent degradation of CD4 and ubiquitination of various proteins including IκB and β-catenin. HOS has also been shown to regulate the degradation of IκB and β-catenin in a similar manner.

CHROMOSOMAL LOCATION

Genetic locus: BTRC (human) mapping to 10q24.32; Btrc (mouse) mapping to 19 C3.

SOURCE

β-TrCP (C-6) is a mouse monoclonal antibody raised against amino acids 26-110 mapping near the N-terminus of β-TrCP 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.

β-TrCP (C-6) is available conjugated to agarose (sc-390629 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390629 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390629 PE), fluorescein (sc-390629 FITC), Alexa Fluor® 488 (sc-390629 AF488), Alexa Fluor® 546 (sc-390629 AF546), Alexa Fluor® 594 (sc-390629 AF594) or Alexa Fluor® 647 (sc-390629 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390629 AF680) or Alexa Fluor® 790 (sc-390629 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

β-TrCP (C-6) is recommended for detection of β-TrCP isoforms 1 and 2 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).

β-TrCP (C-6) is also recommended for detection of β-TrCP isoforms 1 and 2 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for β-TrCP siRNA (h): sc-37178, β-TrCP siRNA (m): sc-37179, β-TrCP shRNA Plasmid (h): sc-37178-SH, β-TrCP shRNA Plasmid (m): sc-37179-SH, β-TrCP shRNA (h) Lentiviral Particles: sc-37178-V and β-TrCP shRNA (m) Lentiviral Particles: sc-37179-V.

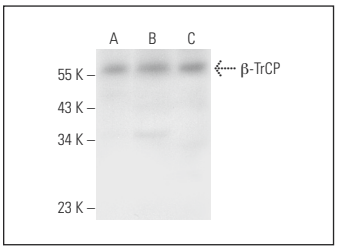
Molecular Weight of β-TrCP: 60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Ramos cell lysate: sc-2216 or ZR-75-1 cell lysate: sc-2241.

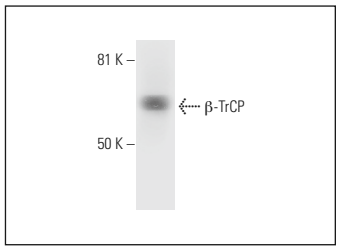
STORAGE

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

DATA



β-TrCP (C-6): sc-390629. Western blot analysis of β-TrCP expression in MDA-MB-435S (**A**), ZR-75-1 (**B**) and Ramos (**C**) whole cell lysates.



β-TrCP (C-6): sc-390629. Western blot analysis of β-TrCP expression in HeLa whole cell lysate.

SELECT PRODUCT CITATIONS

1. Yi, Y.W., et al. 2015. β-TrCP1 degradation is a novel action mechanism of PI3K/mTOR inhibitors in triple-negative breast cancer cells. Exp. Mol. Med. 47: e143.
2. Xu, Y., et al. 2017. Blocking inhibition to YAP by ActinomycinD enhances anti-tumor efficacy of corosolic acid in treating liver cancer. Cell. Signal. 29: 209-217.
3. Park, S., et al. 2018. Therapeutic effect of quinacrine, an antiprotozoan drug, by selective suppression of p-CHK1/2 in p53-negative malignant cancers. Mol. Cancer Res. 16: 935-946.
4. Paul, D., et al. 2019. F-box protein FBXO16 functions as a tumor suppressor by attenuating nuclear β-catenin function. J. Pathol. 248: 266-279.
5. Islam, S., et al. 2021. β-TrCP1 facilitates cell cycle checkpoint activation, DNA repair and cell survival through ablation of β-TrCP2 in response to genotoxic stress. J. Biol. Chem. 296: 100511.
6. Li, Y., et al. 2022. Trp53 controls chondrogenesis and endochondral ossification by negative regulation of TAZ activity and stability via β-TrCP-mediated ubiquitination. Cell Death Discov. 8: 317.
7. Xiong, H., et al. 2022. Activation of the β-TrCP/IκBα/inflammation axis limits the sensitivity of liver cancer cells to neddylation inhibition. Oncol. Rep. 48: 201.
8. Ding, L., et al. 2023. Canagliflozin primes antitumor immunity by triggering PD-L1 degradation in endocytic recycling. J. Clin. Invest. 133: e154754.
9. Zhao, B., et al. 2023. USP13 promotes breast cancer metastasis through FBXL14-induced Twist1 ubiquitination. Cell. Oncol. 46: 717-733.
10. Ye, D., et al. 2023. LncGMDS-AS1 promotes the tumorigenesis of colorectal cancer through HuR-STAT3/Wnt axis. Cell Death Dis. 14: 165.

RESEARCH USE

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