SANTA CRUZ BIOTECHNOLOGY, INC.

β-TrCP/HOS (C-18): sc-8863

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.

REFERENCES

1. Hatakeyama, S., et al. 1990. Ubiquitin-dependent degradation of IκBα is mediated by a ubiquitin ligase Skp1/Cul 1/F-box protein FWD1. Proc. Natl. Acad. Sci. USA 96: 3859-3863.
2. Margottin, F., et al. 1998. A novel human WD protein, h-β TrCp, that interacts with HIV-1 Vpu connects CD4 to the ER degradation pathway through an F-box motif. Mol. Cell 1: 565-574.
3. Yaron, A., et al. 1998. Identification of the receptor component of the IκBα-ubiquitin ligase. Nature 396: 590-594.

CHROMOSOMAL LOCATION

Genetic locus: BTRC (human) mapping to 10q24.32, FBXW11 (human) mapping to 5q35.1; Btrc (mouse) mapping to 19 C3, Fbxw11 (mouse) mapping to 11 A4.

SOURCE

β-TrCP/HOS (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of β-TrCP 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-8863 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

β-TrCP/HOS (C-18) is recommended for detection of β-TrCP and HOS 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

β-TrCP/HOS (C-18) is also recommended for detection of β-TrCP and HOS in additional species, including equine, canine, bovine, porcine and avian.

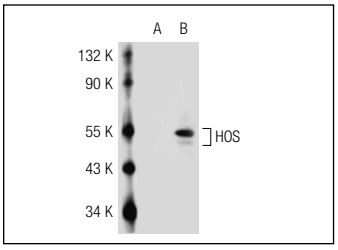
Molecular Weight of β-TrCP/HOS: 60 kDa.

Positive Controls: HOS (h): 293T Lysate: sc-113730 or HeLa whole cell lysate: sc-2200.

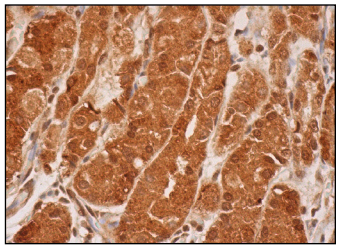
STORAGE

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

DATA



β-TrCP/HOS (C-18): sc-8863. Western blot analysis of HOS expression in non-transfected: sc-117752 (**A**) and human HOS transfected: sc-113730 (**B**) 293T whole cell lysates.



β-TrCP/HOS (C-18): sc-8863. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic and membrane staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Lassot, I., et al. 2001. ATF4 degradation relies on a phosphorylation-dependent interaction with the SCFTrCP ubiquitin ligase. Mol. Cell. Biol. 21: 2192-2202.
2. Davis, M., et al. 2002. Pseudosubstrate regulation of the SCF(β-TrCP) ubiquitin ligase by hnRNP-U. Genes Dev. 16: 439-451.
3. Lang, V., et al. 2003. β-TrCP-mediated proteolysis of NFκB1 p105 requires phosphorylation of p105 Serines 927 and 932. Mol. Cell. Biol. 23: 402-413.
4. Coadou, G., et al. 2003. NMR studies of the phosphorylation motif of the HIV-1 protein Vpu bound to the F-box protein β-TrCP. Biochemistry 42: 14741-14751.
5. Belaidouni, N., et al. 2005. Overexpression of human β-TrCP1 deleted of its F box induces tumorigenesis in transgenic mice. Oncogene 24: 2271-2276.
6. Da Silva-Ferrada, E., et al. 2011. Role of monoubiquitylation on the control of IκB-α degradation and NFκB activity. PLoS ONE 6: e25397.

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.