

CHIP (I-16): sc-33264

BACKGROUND

CHIP (carboxy terminus of HSP 70-interacting protein), also designated STIP1 homology and U-box containing protein 1, HSPABP2, NY-CO-7, SDCCAG7 and STUB1, is a cytoplasmic E3 ubiquitin ligase that influences protein ubiquitylation. CHIP interacts with Smad1/Smad4 and blocks BMP signaling through the ubiquitin-mediated degradation of Smad proteins. It controls both association of HSP 70/HSP 90 chaperones with ErbB2 and downregulation of ErbB2 induced by inhibitors of HSP 90. A 1.3-kb transcript is most abundant in striated muscle (heart and skeletal muscle), with lower expression in pancreas and brain.

REFERENCES

1. Ballinger, C.A., et al. 1999. Identification of CHIP, a novel tetratricopeptide repeat-containing protein that interacts with heat shock proteins and negatively regulates chaperone functions. *Mol. Cell. Biol.* 19: 4535-4545.
2. Jiang, J., et al. 2001. CHIP is a U-box-dependent E3 ubiquitin ligase: identification of HSC 70 as a target for ubiquitylation. *J. Biol. Chem.* 276: 42938-42944.
3. Xu, W., et al. 2002. Chaperone-dependent E3 ubiquitin ligase CHIP mediates a degradative pathway for c-ErbB2/Neu. *Proc. Natl. Acad. Sci. USA* 99: 12847-12852.
4. Imai, Y., et al. 2002. CHIP is associated with Parkin, a gene responsible for familial Parkinson's disease, and enhances its ubiquitin ligase activity. *Mol. Cell* 10: 55-67.

CHROMOSOMAL LOCATION

Genetic locus: STUB1 (human) mapping to 16p13.3; Stub1 (mouse) mapping to 17 A3.3.

SOURCE

CHIP (I-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CHIP 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-33264 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

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.

APPLICATIONS

CHIP (I-16) is recommended for detection of CHIP 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).

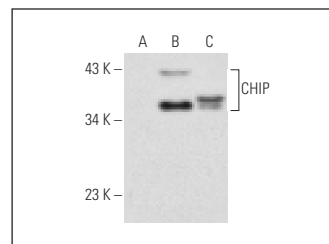
CHIP (I-16) is also recommended for detection of CHIP in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CHIP siRNA (h): sc-43555, CHIP siRNA (m): sc-44731, CHIP shRNA Plasmid (h): sc-43555-SH, CHIP shRNA Plasmid (m): sc-44731-SH, CHIP shRNA (h) Lentiviral Particles: sc-43555-V and CHIP shRNA (m) Lentiviral Particles: sc-44731-V.

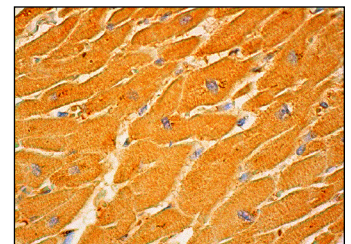
Molecular Weight of CHIP: 35 kDa.

Positive Controls: CHIP (h): 293T Lysate: sc-170019, MIA PaCa-2 cell lysate: sc-2285 or HeLa whole cell lysate: sc-2200.

DATA



CHIP (I-16): sc-33264. Western blot analysis of CHIP expression in non-transfected 293T: sc-117752 (A), human CHIP transfected 293T: sc-170019 (B) and HeLa (C) whole cell lysates.



CHIP (I-16): sc-33264. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

SELECT PRODUCT CITATIONS

1. Ghi, P., et al. 2009. Age-related modifications of egr1 expression and ubiquitin-proteasome components in pet dog hippocampus. *Mech. Ageing Dev.* 130: 320-327.
2. Massinen, S., et al. 2009. Functional interaction of DYX1C1 with estrogen receptors suggests involvement of hormonal pathways in dyslexia. *Hum. Mol. Genet.* 18: 2802-2812.
3. Jang, K.W., et al. 2011. The C-terminus of Hsp70-interacting protein promotes Met receptor degradation. *J. Thorac. Oncol.* 6: 679-687.


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Try **CHIP (G-2): sc-133066** or **CHIP (C-10): sc-133083**, our highly recommended monoclonal alternatives to CHIP (I-16). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **CHIP (G-2): sc-133066**.