

CHIP (H-231): sc-66830

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.

CHROMOSOMAL LOCATION

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

SOURCE

CHIP (H-231) is a rabbit polyclonal antibody raised against amino acids 73-303 mapping at 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.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

CHIP (H-231) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CHIP (H-231) 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.

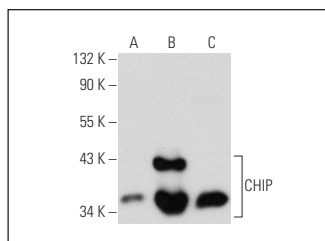
Molecular Weight of CHIP: 35 kDa.

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

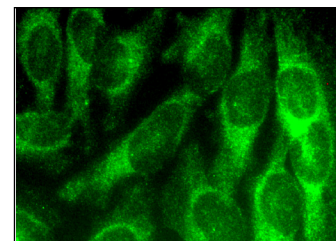
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CHIP (H-231): sc-66830. 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 (H-231): sc-66830. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Li, F., et al. 2009. C terminus of Hsc70-interacting protein promotes smooth muscle cell proliferation and survival through ubiquitin-mediated degradation of FoxO1. *J. Biol. Chem.* 284: 20090-20098.
- Kim, S.M., et al. 2010. Liver cytochrome P450 3A ubiquitination *in vivo* by gp78/autocrine motility factor receptor and C terminus of Hsp70-interacting protein (CHIP) E3 ubiquitin ligases: physiological and pharmacological relevance. *J. Biol. Chem.* 285: 35866-35877.
- Kundrat, L. and Regan, L. 2010. Balance between folding and degradation for Hsp90-dependent client proteins: a key role for CHIP. *Biochemistry* 49: 7428-7438.
- Zhao, B., et al. 2012. Carboxy terminus of heat shock protein (HSP) 70-interacting protein (CHIP) inhibits HSP70 in the heart. *J. Physiol. Biochem.* 68: 485-491.

RESEARCH USE

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



Try **CHIP (G-2): sc-133066** or **CHIP (C-10): sc-133083**, our highly recommended monoclonal alternatives to CHIP (H-231). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **CHIP (G-2): sc-133066**.