

# CHIP (G-2): sc-133066

## 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 Hsp70/Hsp90 chaperones with ErbB2 and down-regulation of ErbB2 induced by inhibitors of Hsp90. 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 (G-2) is a mouse monoclonal antibody raised against amino acids 73-303 mapping at the C-terminus of CHIP of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CHIP (G-2) is available conjugated to agarose (sc-133066 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-133066 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-133066 PE), fluorescein (sc-133066 FITC), Alexa Fluor® 488 (sc-133066 AF488), Alexa Fluor® 546 (sc-133066 AF546), Alexa Fluor® 594 (sc-133066 AF594) or Alexa Fluor® 647 (sc-133066 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-133066 AF680) or Alexa Fluor® 790 (sc-133066 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

CHIP (G-2) is recommended for detection of CHIP 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).

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 (m2): 293T Lysate: sc-119227, CHIP (h): 293T Lysate: sc-170019 or HeLa whole cell lysate: sc-2200.

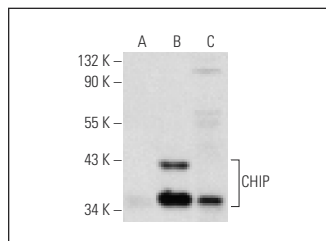
## RESEARCH USE

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

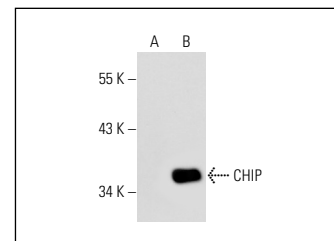
## STORAGE

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

## DATA



CHIP (G-2): sc-133066. 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 (G-2): sc-133066. Western blot analysis of CHIP expression in non-transfected: sc-117752 (A) and mouse CHIP transfected: sc-119227 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Gao, B., et al. 2013. Inhibition of histone deacetylase activity suppresses IFN-γ induction of tripartite motif 22 via CHIP-mediated proteasomal degradation of IRF-1. *J. Immunol.* 191: 464-471.
- Zhu, X., et al. 2014. Ubiquitination of inositol-requiring enzyme 1 (IRE1) by the E3 ligase CHIP mediates the IRE1/TRAF2/JNK pathway. *J. Biol. Chem.* 289: 30567-30577.
- Zhao, Y., et al. 2015. E3 ubiquitin ligase Cbl-b regulates thymic-derived CD4<sup>+</sup>CD25<sup>+</sup> regulatory T cell development by targeting Foxp3 for ubiquitination. *J. Immunol.* 194: 1639-1645.
- Wang, J., et al. 2016. PC-1 works in conjunction with E3 ligase CHIP to regulate androgen receptor stability and activity. *Oncotarget* 7: 81377-81388.
- Lee, J., et al. 2018. The acetylation of cyclin-dependent kinase 5 at lysine 33 regulates kinase activity and neurite length in hippocampal neurons. *Sci. Rep.* 8: 13676.
- Maan, M. and Pati, U. 2018. CHIP promotes autophagy-mediated degradation of aggregating mutant p53 in hypoxic conditions. *FEBS J.* 85: 3197-3214.
- Niu, X., et al. 2018. GRP75 modulates oncogenic Dbl-driven endocytosis derailed via the CHIP-mediated ubiquitin degradation pathway. *Cell Death Dis.* 9: 971.
- Lu, Y., et al. 2018. Cambogin suppresses dextran sulphate sodium-induced colitis by enhancing Treg cell stability and function. *Br. J. Pharmacol.* 175: 1085-1099.
- Chou, C.W., et al. 2019. Therapeutic effects of statins against lung adenocarcinoma via p53 mutant-mediated apoptosis. *Sci. Rep.* 9: 20403.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.