

# Max (C-17): sc-197

## BACKGROUND

It is now well established that the nature and relative abundance of individual subunits of different classes of transcription factors can positively or negatively regulate levels of gene expression. Myc proteins homodimerize and bind DNA poorly, if at all, at physiological levels. Max is a nuclear localized bHLH-Zip protein initially identified by screening a B cell expression library with the bHLH-Zip region of c-Myc. Max homodimers and the Myc-Max heterodimers bind the sequence CACGTG; however the binding of the heterodimeric complex is stronger than the Max homodimer. In contrast to Myc, which is highly regulated during progression through the cell cycle, Max is highly stable and is much more abundant than Myc. Two members of the bHLH-Zip protein family, designated MAD and Mxi1, homodimerize poorly but form heterodimeric complexes with Max that have opposing functions to Myc-Max heterodimers with respect to regulation of gene expression.

## CHROMOSOMAL LOCATION

Genetic locus: MAX (human) mapping to 14q23.3; Max (mouse) mapping to 12 C3.

## SOURCE

Max (C-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of Max 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-197 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-197 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Max (C-17) is recommended for detection of Max p21 and p22 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).

Max (C-17) is also recommended for detection of Max p21 and p22 in additional species, including canine, bovine and feline.

Suitable for use as control antibody for Max siRNA (h): sc-38079, Max siRNA (m): sc-38080, Max shRNA Plasmid (h): sc-38079-SH, Max shRNA Plasmid (m): sc-38080-SH, Max shRNA (h) Lentiviral Particles: sc-38079-V and Max shRNA (m) Lentiviral Particles: sc-38080-V.

Max (C-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

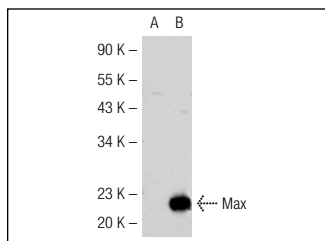
Molecular Weight of Max: 26 kDa.

Positive Controls: Max (h): 293T Lysate: sc-114184,

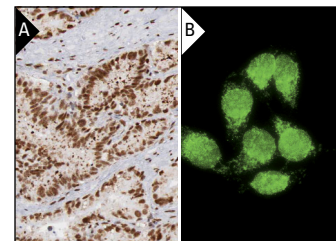
## STORAGE

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

## DATA



Max (C-17): sc-197. Western blot analysis of Max expression in non-transfected: sc-117752 (A) and human Max transfected: sc-114184 (B) 293T whole cell lysates.



Max (C-17): sc-197. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human seminal vesicle tissue showing nuclear staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (A) and Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (B).

## SELECT PRODUCT CITATIONS

- McMahon, S.B., et al. 1998. The novel ATM-related protein TRRAP is an essential cofactor for the c-Myc and E2F oncoproteins. *Cell* 94: 363-374.
- Dominguez-Sola, D., et al. 2007. Non-transcriptional control of DNA replication by c-Myc. *Nature* 448: 445-451.
- Funakoshi-Tago, M. 2008. Jak2 FERM domain interaction with the erythropoietin receptor regulates Jak2 kinase activity. *Mol. Cell. Biol.* 28: 1792-1801.
- Wu, S., et al. 2009. TGF-β enforces senescence in Myc-transformed hematopoietic tumor cells through induction of Mad1 and repression of Myc activity. *Exp. Cell Res.* 315: 3099-3111.
- Chen, L., et al. 2010. p53 is a direct transcriptional target of MYCN in neuroblastoma. *Cancer Res.* 70: 1377-1388.
- Papanikolaou, V., et al. 2011. Survivin regulation by HER2 through NFκB and c-myc in irradiated breast cancer cells. *J. Cell. Mol. Med.* 15: 1542-1550.
- Palianopoulou, M., et al. 2011. The activation of leptin-mediated survivin is limited by the inducible suppressor SOCS-3 in MCF-7 cells. *Exp. Biol. Med.* 236: 70-76.

## RESEARCH USE

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



Try **Max (H-2): sc-8011**, our highly recommended monoclonal alternative to Max (C-17). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **Max (H-2): sc-8011**.