SANTA CRUZ BIOTECHNOLOGY, INC.

c-Myc (A-14): sc-789

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

c-Myc-, N-Myc- and L-Myc-encoded proteins function in cell proliferation, differentiation and neoplastic disease. Amplification of the c-Myc gene has been found in several types of human tumors including lung, breast and colon carcinomas. The presence of three sequence motifs in the c-Myc COOH terminus, including the leucine zipper, the helix-loop-helix and a basic region, provided initial evidence for a sequence-specific binding function. A basic region helix-loop-helix leucine zipper motif (bHLH-Zip) protein, designated Max, specifically associates with c-Myc, N-Myc and L-Myc proteins. The Myc-Max complex binds to DNA in a sequence-specific manner under conditions where neither Max nor Myc exhibits appreciable binding. Max can also form heterodimers with at least two additional bHLH-Zip proteins, Mad and Mxi1 and Mad-Max.

CHROMOSOMAL LOCATION

Genetic locus: MYC (human) mapping to 8q24.21.

SOURCE

c-Myc (A-14) is available as either rabbit (sc-789) or goat (sc-789-G) polyclonal affinity purified antibody raised against a peptide mapping near the C-terminus of c-Myc of human origin.

PRODUCT

Each vial contains either 100 µg (sc-789) or 200 µg (sc-789-G) IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for ChIP application, sc-789 X, 200 µg/0.1 ml.

c-Myc (A-14) is available conjugated to agarose (sc-789 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-789 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-789 PE, 200 µg/ml), fluorescein (sc-789 FITC, 200 µg/ml), Alexa Fluor® 488 (sc-789 AF488, 200 µg/ml) or Alexa Fluor® 647 (sc-789 AF647, 200 µg/ml), for IF, IHC(P) and FCM.

In addition, c-Myc (A-14) is available conjugated to biotin (sc-789 B), 200 µg/ml, for WB, IHC(P) and ELISA; and to either TRITC (sc-789 TRITC, 200 µg/ml) or Alexa Fluor® 405 (sc-789 AF405), 100 µg/2 ml, for IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-789 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

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

c-Myc (A-14) is recommended for detection of c-Myc p67 and c-Myc tagged fusion proteins of human and monkey origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:25, dilution range 1:25-1:250), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); minimal cross-reactivity with c-Myc of mouse and rat origin.

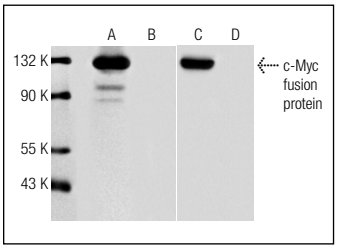
Suitable for use as control antibody for c-Myc siRNA (h): sc-29226, c-Myc shRNA Plasmid (h): sc-29226-SH and c-Myc shRNA (h) Lentiviral Particles: sc-29226-V.

c-Myc (A-14) X TransCruz antibody is recommended for ChIP assays.

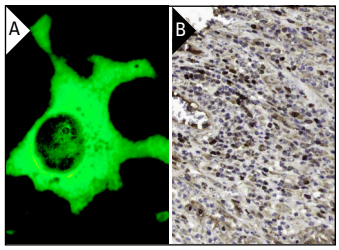
Molecular Weight of c-Myc: 67 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

DATA



Western blot analysis of whole cell lysates prepared from COS cells transfected with a c-Myc fusion protein (**A**,**C**) and non-transfected (**B**,**D**) cells. Antibodies tested include c-Myc (A-14): sc-789 (**A**,**B**) and c-Myc (A-14)-G: sc-789-G (**C**,**D**).



c-Myc (A-14): sc-789. Immunofluorescence staining of methanol-fixed COS cells transfected with c-Myc fusion protein showing cytoplasmic staining (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cervical cancer tissue showing nuclear and cytoplasmic staining of tumor cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

SELECT PRODUCT CITATIONS

1. Khokhlatchev, A.V., et al. 1998. Phosphorylation of the MAP kinase ERK2 promotes its homodimerization and nuclear translocation. Cell 93: 605-615.
2. Markkanen, E., et al. 2012. Regulation of oxidative DNA damage repair by DNA polymerase λ and MutYH by cross-talk of phosphorylation and ubiquitination. Proc. Natl. Acad. Sci. USA 109: 437-442.
3. Yu, Y., et al. 2013. PKR-like endoplasmic reticulum kinase is necessary for lipogenic activation during HCMV infection. PLoS Pathog. 9: e1003266.

MONOS Satisfaction Guaranteed

Try **c-Myc (9E10): sc-40** or **c-Myc (C-33): sc-42**, our highly recommended monoclonal alternatives to c-Myc (A-14). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **c-Myc (9E10): sc-40**.