

p-c-Myc (Thr 58): sc-135647

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 1 and Mxi1, and Mad 1-Max dimers have been shown to repress transcription through interaction with mSin3.

CHROMOSOMAL LOCATION

Genetic locus: MYC (human) mapping to 8q24.21; Myc (mouse) mapping to 15 D1.

SOURCE

p-c-Myc (Thr 58) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Thr 58 phosphorylated c-Myc of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml 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

p-c-Myc (Thr 58) is recommended for detection of Thr 58 phosphorylated c-Myc 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for c-Myc siRNA (h): sc-29226, c-Myc siRNA (m): sc-29227, c-Myc shRNA Plasmid (h): sc-29226-SH, c-Myc shRNA Plasmid (m): sc-29227-SH, c-Myc shRNA (h) Lentiviral Particles: sc-29226-V and c-Myc shRNA (m) Lentiviral Particles: sc-29227-V.

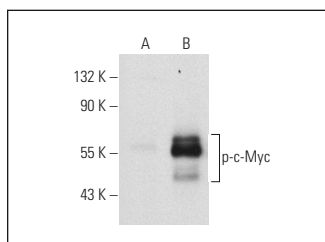
Molecular Weight of p-c-Myc: 67 kDa.

Positive Controls: c-Myc (h2): 293T Lysate: sc-116671.

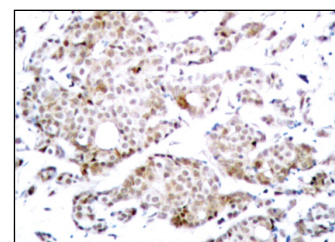
RECOMMENDED SECONDARY REAGENTS

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 B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

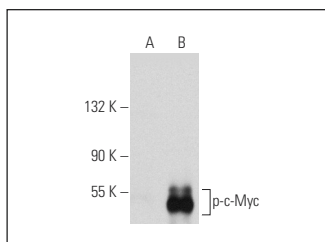
DATA



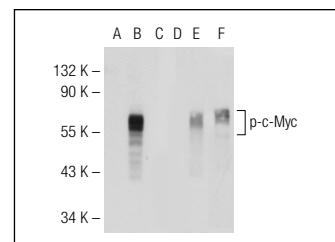
p-c-Myc (Thr 58): sc-135647. Western blot analysis of c-Myc phosphorylation in non-transfected: sc-117752 (A) and human c-Myc transfected: sc-116671 (B) 293T whole cell lysates.



p-c-Myc (Thr 58): sc-135647. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing nuclear localization.



p-c-Myc (Thr 58): sc-135647. Western blot analysis of c-Myc phosphorylation in non-transfected: sc-117752 (A) and human c-Myc transfected: sc-110502 (B) 293T whole cell lysates.



Western blot analysis of c-Myc phosphorylation in non-transfected: sc-117752 (A, D), untreated mouse c-Myc transfected: sc-118892 (B, E) and lambda protein phosphatase treated mouse c-Myc transfected: sc-118892 (C, F) 293T whole cell lysates. Antibodies tested include p-c-Myc (Thr 58): sc-135647 (A, B, C) and c-Myc (N-262): sc-764 (D, E, F).

SELECT PRODUCT CITATIONS

- Buraschi, S., et al. 2010. Decorin antagonizes Met receptor activity and down-regulates β-catenin and Myc levels. *J. Biol. Chem.* 285: 42075-42085.
- Kim, B.Y., et al. 2010. NEMO stabilizes c-Myc through direct interaction in the nucleus. *FEBS Lett.* 584: 4524-4530.

RESEARCH USE

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