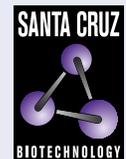


c-Myb (D-7): sc-74512



The Power to Question

BACKGROUND

The highly leukemogenic avian retrovirus E26 contains two oncogenes, v-Myb and v-Ets, which are expressed together as a fusion protein. The cellular homolog of v-Myb, designated c-Myb, encodes a transcription factor. Deletion or disruption of a negative regulatory domain mapping within the carboxy-terminal domain of c-Myb results in enhanced transactivating capacity and in parallel, leads to activation of its ability to transform hemopoietic cells. c-Myb is expressed preferentially, but not exclusively, in immature hemopoietic cells and its expression decreases as cells differentiate. A second member of the Myb proto-oncogene family, B-Myb, encodes a second sequence-specific DNA-binding protein. B-Myb RNA levels are low or undetectable in quiescent cells but increase at the G₁ to S phase transition following mitogenic stimulation. Studies suggest that B-Myb expression rescues cells from p53-induced G₁ arrest mediated by p21.

CHROMOSOMAL LOCATION

Genetic locus: MYB (human) mapping to 6q23.3; Myb (mouse) mapping to 10 A3.

SOURCE

c-Myb (D-7) is a mouse monoclonal antibody raised against amino acids 500-640 of c-Myb of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain 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-74512 X, 200 µg/0.1 ml.

c-Myb (D-7) is available conjugated to agarose (sc-74512 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74512 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74512 PE), fluorescein (sc-74512 FITC), Alexa Fluor® 488 (sc-74512 AF488), Alexa Fluor® 546 (sc-74512 AF546), Alexa Fluor® 594 (sc-74512 AF594) or Alexa Fluor® 647 (sc-74512 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-74512 AF680) or Alexa Fluor® 790 (sc-74512 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

c-Myb (D-7) is recommended for detection of c-Myb 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).

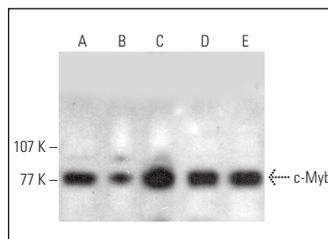
Suitable for use as control antibody for c-Myb siRNA (h): sc-29855, c-Myb siRNA (m): sc-29856, c-Myb shRNA Plasmid (h): sc-29855-SH, c-Myb shRNA Plasmid (m): sc-29856-SH, c-Myb shRNA (h) Lentiviral Particles: sc-29855-V and c-Myb shRNA (m) Lentiviral Particles: sc-29856-V.

c-Myb (D-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

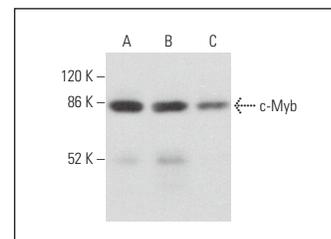
Molecular Weight of c-Myb: 75 kDa.

STORAGE

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

DATA

c-Myb (D-7) HRP: sc-74512 HRP. Direct western blot analysis of c-Myb expression in THP-1 (A), K-562 (B), CCRF-CEM (C), Jurkat (D) and MOLT-4 (E) whole cell lysates.



c-Myb (D-7): sc-74512. Western blot analysis of c-Myb expression in THP-1 (A), K-562 (B) and U-698-M (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Tan, F.E., et al. 2013. Myb promotes centriole amplification and later steps of the multiciliogenesis program. *Development* 140: 4277-4286.
2. Pan, J.H., et al. 2014. Myb permits multilineage airway epithelial cell differentiation. *Stem Cells* 32: 3245-3256.
3. Todorova, K., et al. 2016. miR-204 is dysregulated in metastatic prostate cancer *in vitro*. *Mol. Carcinog.* 55: 131-147.
4. Hu, T., et al. 2017. Hypermethylated LTR retrotransposon exhibits enhancer activity. *Epigenetics* 12: 226-237.
5. Zeng, K., et al. 2018. CircHIPK3 promotes colorectal cancer growth and metastasis by sponging miR-7. *Cell Death Dis.* 9: 417.
6. Chu, Q., et al. 2019. STK11 is required for the normal program of ciliated cell differentiation in airways. *Cell Discov.* 5: 36.
7. Andersson, M.K., et al. 2020. ATR is a Myb regulated gene and potential therapeutic target in adenoid cystic carcinoma. *Oncogenesis* 9: 5.
8. Shah, Z., et al. 2021. Myb bi-allelic targeting abrogates primitive clonogenic progenitors while the emergence of primitive blood cells is not affected. *Haematologica* 106: 2191-2202.
9. Azagra, A., et al. 2022. The HDAC7-TET2 epigenetic axis is essential during early B lymphocyte development. *Nucleic Acids Res.* 50: 8471-8490.
10. Humtsoe, J.O., et al. 2022. Development and characterization of MYB-NFIB fusion expression in adenoid cystic carcinoma. *Cancers* 14: 2263.
11. Clarke, M.L., et al. 2023. MYB insufficiency disrupts proteostasis in hematopoietic stem cells leading to age-related neoplasia. *Blood* 141: 1858-1870.

RESEARCH USE

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

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