

Dmp1 (S-19): sc-6552

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 terminus 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 another sequence-specific DNA binding protein. Studies suggest that B-Myb expression rescues cells from p53-induced G₁ arrest mediated by p21. Dmp1 (also designated cyclin D binding Myb-like transcription factor 1) has also been identified as a Myb-like transcription factor. It contains three tandem Myb repeats and has been shown to be a substrate for cyclin D-dependent kinases.

REFERENCES

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- Gonda, T.J., et al. 1985. Nucleotide sequence of cDNA clones of the murine Myb proto-oncogene. *EMBO J.* 4: 2003-2008.
- Sakura, H., et al. 1989. Delineation of three functional domains of the transcriptional activator encoded by the c-Myb proto-oncogene. *Proc. Natl. Acad. Sci. USA* 86: 5758-5762.
- Mizuguchi, G., et al. 1990. DNA binding activity and transcriptional activator function of the human B-Myb protein compared with c-Myb. *J. Biol. Chem.* 265: 9280-9284.
- Ramsay, R.G., et al. 1991. Increase in specific DNA binding by carboxyl truncation suggests a mechanism for activation of Myb. *Oncogene* 6: 1875-1879.
- Favier, D. et al. 1994. Detection of proteins that bind to the leucine zipper motif of c-Myb. *Oncogene* 9: 305-311.
- Lin, D., et al. 1994. Constitutive expression of B-Myb can bypass p53-induced Waf1/Cip1-mediated G₁ arrest. *Proc. Natl. Acad. Sci. USA* 91: 10079-10083.

CHROMOSOMAL LOCATION

Genetic locus: DMTF1 (human) mapping to 7q21.12; Dmtf1 (mouse) mapping to 5 A1.

SOURCE

Dmp1 (S-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Dmp1 of mouse origin.

STORAGE

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

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-6552 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-6552 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Dmp1 (S-19) is recommended for detection of Dmp1 (also designated cyclin D binding myb-like transcription factor 1) of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Dmp1 (S-19) is also recommended for detection of Dmp1 (also designated cyclin D binding myb-like transcription factor 1) in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Dmp1 siRNA (h): sc-38068, Dmp1 siRNA (m): sc-38069, Dmp1 shRNA Plasmid (h): sc-38068-SH, Dmp1 shRNA Plasmid (m): sc-38069-SH, Dmp1 shRNA (h) Lentiviral Particles: sc-38068-V and Dmp1 shRNA (m) Lentiviral Particles: sc-38069-V.

Dmp1 (S-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Dmp1: 84 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

- Inoue, K., et al. 1999. Induction of ARF tumor suppressor gene expression and cell cycle arrest by transcription factor Dmp1. *Proc. Natl. Acad. Sci. USA* 96: 3993-3998.

RESEARCH USE

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



Try **Dmp1 (DMTF5I250): sc-81249**, our highly recommended monoclonal alternative to Dmp1 (S-19).