

Spi-C (M-76): sc-135287

BACKGROUND

The Ets transcription factor family is comprised of DNA-binding proteins that influence lymphoid development and activity and bind the consensus DNA site GGA(A/T) through a unique winged helix-turn-helix motif known as the Ets domain. Spi-B and Spi-C (also known as SPIC) are closely related Ets family members which share a conserved divergent sequence within the Ets domain that enables their binding to non-canonical AGAA sites. Spi-C is a 248 amino acid protein that localizes to the nucleus and, like other Ets family members, binds DNA as a monomer and plays a role in transcriptional regulation. Additionally, Spi-C is thought to control the development of red pulp macrophages, thereby contributing to iron homeostasis and red blood cell recycling. Human Spi-C shares 65% amino acid identity with its mouse counterpart, suggesting a conserved role between species.

REFERENCES

1. Carlsson, R., et al. 2002. Genomic structure of mouse Spic and genomic structure and expression pattern of human SPIC. *Gene* 299: 271-278.
2. Kageyama, S., et al. 2006. The role of ETS transcription factors in transcription and development of mouse preimplantation embryos. *Biochem. Biophys. Res. Commun.* 344: 675-679.
3. Carlsson, R., et al. 2006. Spi-C and Stat6 can cooperate to stimulate IgE germline transcription. *Biochem. Biophys. Res. Commun.* 344: 1155-1160.
4. Guillouf, C., et al. 2006. Spi-1/PU.1 oncoprotein affects splicing decisions in a promoter binding-dependent manner. *J. Biol. Chem.* 281: 19145-19155.
5. Schweitzer, B.L., et al. 2006. Spi-C has opposing effects to PU.1 on gene expression in progenitor B cells. *J. Immunol.* 177: 2195-2207.
6. Zhu, X., et al. 2008. Transgenic expression of Spi-C impairs B cell development and function by affecting genes associated with Bcr signaling. *Eur. J. Immunol.* 38: 2587-2599.
7. Uchiya, K., et al. 2008. Salmonella virulence factor Spi-C is involved in expression of flagellin protein and mediates activation of the signal transduction pathways in macrophages. *Microbiology* 154: 3491-3502.

CHROMOSOMAL LOCATION

Genetic locus: SpiC (mouse) mapping to 10 C1.

SOURCE

Spi-C (M-76) is a rabbit polyclonal antibody raised against amino acids 81-156 mapping within an internal region of Spi-C of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of 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.

APPLICATIONS

Spi-C (M-76) is recommended for detection of Spi-C of mouse and rat 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Spi-C siRNA (m): sc-76562, Spi-C shRNA Plasmid (m): sc-76562-SH and Spi-C shRNA (m) Lentiviral Particles: sc-76562-V.

Spi-C (M-76) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of Spi-C: 28 kDa.

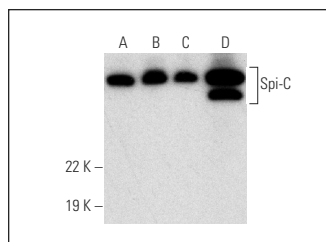
Molecular Weight (observed) of Spi-C: 36 kDa.

Positive Controls: SP2/0 whole cell lysate: sc-364795, mouse brain extract: sc-2253 or RAW 264.7 nuclear extract: sc-24961.

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 A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 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.

DATA



Spi-C (M-76): sc-135287. Western blot analysis of Spi-C expression in NIH/3T3 (A), SP2/0 (B) and RAW 264.7 (C) whole cell lysates and mouse brain tissue extract (D).

SELECT PRODUCT CITATIONS

1. Alcalay, Y., et al. 2013. Popeye domain containing 1 (Popdc1/Bves) is a caveolae-associated protein involved in ischemia tolerance. *PLoS One* 8: e71100.

RESEARCH USE

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