

# TH-POK (G-16): sc-79125

## BACKGROUND

TH-POK (T-helper-inducing POZ/Krueppel-like factor), also known as zinc finger protein 67 (ZFP67), zinc finger and BTB domain-containing protein 7B or krueppel-related zinc finger protein cKrox, is a 539 amino acid protein that contains one BTB (POZ) domain and four C<sub>2</sub>H<sub>2</sub>-type zinc fingers. Localized to the nucleus, TH-POK functions primarily as a key regulator of lineage commitment of immature T cell precursors. Specifically, the presence of TH-POK directs positively selected thymocytes to the CD4 lineage, whereas its absence causes default development to the CD8 lineage. TH-POK also functions as a transcriptional repressor of various other genes, such as COL1A1, COL1A2 and fibronectin.

## REFERENCES

1. He, X., He, X., Dave, V.P., Zhang, Y., Hua, X., Nicolas, E., Xu, W., Roe, B.A. and Kappes, D.J. 2005. The zinc finger transcription factor Th-POK regulates CD4 versus CD8 T-cell lineage commitment. *Nature* 433: 826-833.
2. He, X. and Kappes, D.J. 2006. CD4/CD8 lineage commitment: light at the end of the tunnel? *Curr. Opin. Immunol.* 18: 135-142.
3. Kappes, D.J., He, X. and He, X. 2006. Role of the transcription factor Th-POK in CD4:CD8 lineage commitment. *Immunol. Rev.* 209: 237-252.
4. Kimura, H., Morii, E., Ikeda, J.I., Ezoe, S., Xu, J.X., Nakamichi, N., Tomita, Y., Shibayama, H., Kanakura, Y. and Aozasa, K. 2006. Role of DNA methylation for expression of novel stem cell marker CD133 in hematopoietic cells. *Leukemia* 20: 1551-1556.

## CHROMOSOMAL LOCATION

Genetic locus: ZBTB7B (human) mapping to 1q21.3; Zbtb7b (mouse) mapping to 3 F1.

## SOURCE

TH-POK (G-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TH-POK of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79125 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-79125 X, 200 µg/0.1 ml.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

TH-POK (G-16) is recommended for detection of TH-POK 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TH-POK (G-16) is also recommended for detection of TH-POK in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TH-POK siRNA (h): sc-76649, TH-POK siRNA (m): sc-76650, TH-POK shRNA Plasmid (h): sc-76649-SH, TH-POK shRNA Plasmid (m): sc-76650-SH, TH-POK shRNA (h) Lentiviral Particles: sc-76649-V and TH-POK shRNA (m) Lentiviral Particles: sc-76650-V.

TH-POK (G-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TH-POK: 58/80 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## RESEARCH USE

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



Try **TH-POK (A-4): sc-376250** or **TH-POK (C-8): sc-398509**, our highly recommended monoclonal alternatives to TH-POK (G-16).