SANTA CRUZ BIOTECHNOLOGY, INC.

# TH-POK (H-107): sc-292625

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

TH-POK (T-helper-inducing POZ/Krüppel-like factor), also known as zinc-finger protein 67 (ZFP67), zinc finger and BTB domain-containing protein 7B or Krüppel-related zinc-finger protein cKrox, is a 539 amino acid protein that contains one BTB (POZ) domain and 4 $C_2H_2$-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., et al. 2005. The zinc-finger transcription factor TH-POK regulates CD4 versus CD8 T cell lineage commitment. Nature 433: 826-833.
2. He, X., et al. 2006. CD4/CD8 lineage commitment: light at the end of the tunnel? Curr. Opin. Immunol. 18: 135-142.
3. Kappes, D.J., et al. 2006. Role of the transcription factor TH-POK in CD4: CD8 lineage commitment. Immunol. Rev. 209: 237-252.
4. Kimura, H., et al. 2006. Role of DNA methylation for expression of novel stem cell marker CDCP1 in hematopoietic cells. Leukemia 20: 1551-1556.
5. He, X., et al. 2008. CD4-CD8 lineage commitment is regulated by a silencer element at the TH-POK transcription-factor locus. Immunity 28: 346-358.
6. Bell, J.J., et al. 2008. Putting TH-POK in place. Nat. Immunol. 9: 1095-1097.
7. Wang, L., et al. 2008. Distinct functions for the transcription factors GATA-3 and TH-POK during intrathymic differentiation of CD4+ T cells. Nat. Immunol. 9: 1122-1130.
8. Egawa, T., et al. 2008. TH-POK acts late in specification of the helper T cell lineage and suppresses Runx-mediated commitment to the cytotoxic T cell lineage. Nat. Immunol. 9: 1131-1139.


## CHROMOSOMAL LOCATION

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

## SOURCE

TH-POK (H-107) is a rabbit polyclonal antibody raised against amino acids 252-358 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-292625 X, 200 µg/0.1 ml.

## RESEARCH USE

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

## APPLICATIONS

TH-POK (H-107) 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 (H-107) is also recommended for detection of TH-POK in additional species, including equine, canine and bovine.

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 (H-107) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

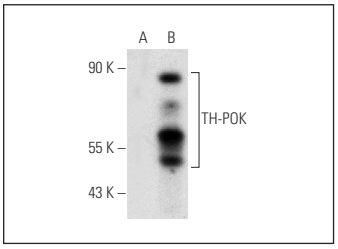
Molecular Weight of TH-POK: 58/80 kDa.

Positive Controls: TH-POK (h4): 293T Lysate: sc-178044, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

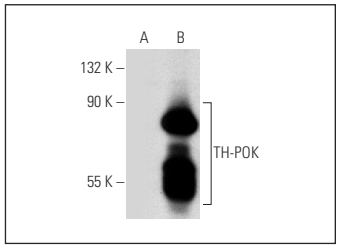
## RECOMMENDED SECONDARY REAGENTS

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




TH-POK (H-107): sc-292625. Western blot analysis of TH-POK expression in non-transfected: sc-117752 (**A**) and human TH-POK transfected: sc-178044 (**B**) 293T whole cell lysates.




TH-POK (H-107): sc-292625. Western blot analysis of TH-POK expression in non-transfected: sc-117752 (**A**) and mouse TH-POK transfected: sc-124029 (**B**) 293T whole cell lysates.

## STORAGE

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