

TH-POK (m2): 293T Lysate: sc-124029

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 C₂H₂-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. 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., 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. and Bhandoola, A. 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.

CHROMOSOMAL LOCATION

Genetic locus: Zbtb7b (mouse) mapping to 3 F1.

PRODUCT

TH-POK (m2): 293T Lysate represents a lysate of mouse TH-POK transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

TH-POK (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive TH-POK antibodies. Recommended use: 10-20 µl per lane.

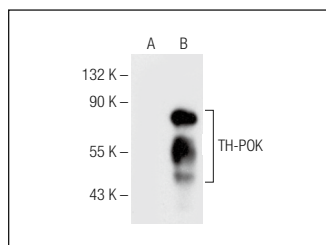
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TH-POK (A-4): sc-376250 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse TH-POK expression in TH-POK transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

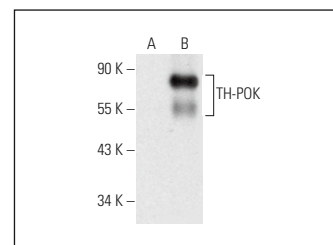
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



TH-POK (A-4): sc-376250. 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.



TH-POK (C-8): sc-398509. 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 -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.