SANTA CRUZ BIOTECHNOLOGY, INC.

TH-POK (S-20): sc-79127

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_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., 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 CDCP1 in hematopoietic cells. Leukemia 20: 1551-1556.
5. He, X., Park, K., Wang, H., He, X., Zhang, Y., Hua, X., Li, Y. and Kappes, D.J. 2008. CD4-CD8 lineage commitment is regulated by a silencer element at the ThPOK transcription-factor locus. Immunity 28: 346-358.
6. Bell, J.J. and Bhandoola, A. 2008. Putting ThPOK in place. Nat. Immunol. 9: 1095-1097.
7. Wang, L., Wildt, K.F., Zhu, J., Zhang, X., Feigenbaum, L., Tessarollo, L., Paul, W.E., Fowlkes, B.J. and Bosselut, R. 2008. Distinct functions for the transcription factors GATA-3 and ThPOK during intrathymic differentiation of CD4+ T cells. Nat. Immunol. 9: 1122-1130.

CHROMOSOMAL LOCATION

Genetic locus: ZBTB7B (human) mapping to 1q21.3.

SOURCE

TH-POK (S-20) 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-79127 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-79127 X, 200 µg/0.1 ml.

APPLICATIONS

TH-POK (S-20) 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), 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).

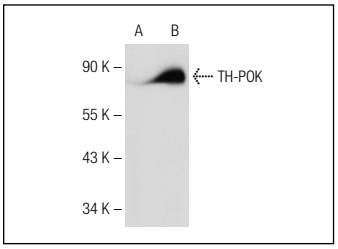
Suitable for use as control antibody for TH-POK siRNA (h): sc-76649, TH-POK siRNA (m): sc-76650, TH-POK shRNA Plasmid (h): sc-76649-SH, TH-POK shRNA Plasmid (m): sc-76650-SH, TH-POK shRNA (h) Lentiviral Particles: sc-76649-V and TH-POK shRNA (m) Lentiviral Particles: sc-76650-V.

TH-POK (S-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

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

Positive Controls: TH-POK (m2): 293T Lysate: sc-124029 or HeLa whole cell lysate: sc-2200.

DATA



TH-POK (S-20): sc-79127. 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.

RESEARCH USE

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

PROTOCOLS

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