

T-bet (h): 293T Lysate: sc-115503

BACKGROUND

T helper (Th) lymphocytes differentiate into two unique subsets, Th1 and Th2, which differ both in function and in the cytokines they secrete. Th1 and Th2 cytokines promote the growth and differentiation of their subset, and inhibit the growth and differentiation of the opposing subset. T-bet (T box expressed in T cells) is a Th1-specific T box transcription factor that controls the expression of the Th1 cytokine, IFN- γ . T-bet also converts effector Th2 cells into the opposing Th1 subset. T-bet is selectively expressed in Th1 cells. The level of T-bet expression is increased by signals mediated by the T cell receptor (TCR). IL-12 also induces an increase in the level of T-bet. T-bet was originally isolated from nuclear extracts of resting and PMA/ionomycin-activated AE7 cells. T-bet is expressed in low levels in AE7 cells, and in increased levels in stimulated AE7.

REFERENCES

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7. Tong, Y., et al. 2005. T-bet antagonizes mSin3a recruitment and transactivates a fully methylated IFN- γ promoter via a conserved T-box half-site. *Proc. Natl. Acad. Sci. USA* 102: 2034-2039.
8. Dorfman, D.M., et al. 2005. T-bet, a T cell-associated transcription factor, is expressed in Hodgkin's lymphoma. *Hum. Pathol.* 36: 10-15.
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CHROMOSOMAL LOCATION

Genetic locus: TBX21 (human) mapping to 17q21.32.

PRODUCT

T-bet (h): 293T Lysate represents a lysate of human T-bet transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

T-bet (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive T-bet antibodies. Recommended use: 10-20 μ l per lane.

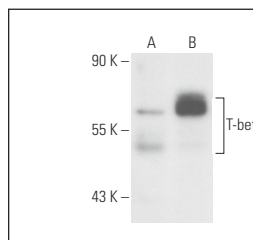
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

T-bet (D-5): sc-137114 is recommended as a positive control antibody for Western Blot analysis of enhanced human T-bet expression in T-bet transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

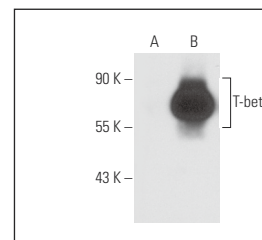
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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



T-bet (D-5): sc-137114. Western blot analysis of T-bet expression in non-transfected: sc-117752 (A) and human T-bet transfected: sc-115503 (B) 293T whole cell lysates.



T-bet (39D): sc-21763. Western blot analysis of T-bet expression in non-transfected: sc-117752 (A) and human T-bet transfected: sc-115503 (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.