**T-bet (39D): sc-21763**

**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.

**CHROMOSOMAL LOCATION**

Genetic locus: TBX21 (human) mapping to 17q21.32; Tbx21 (mouse) mapping to 11 D.

**SOURCE**

T-bet (39D) is a mouse monoclonal antibody raised against full-length recombinant T-bet of mouse origin.

**PRODUCT**

Each vial contains 200 µg IgG₂, kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-21763 X, 200 µg/0.1 ml.

**APPLICATIONS**

T-bet (39D) is recommended for detection of T-bet 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).


T-bet (39D) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of T-bet: 62 kDa.

Positive Controls: BJAB nuclear extract: sc-2145, T-bet (h): 293T Lysate: sc-115503 or Jurkat nuclear extract: sc-2132.

**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.

**DATA**

**SELECT PRODUCT CITATIONS**


See T-bet (4B10): sc-21749 for T-bet antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.