

DESCRIPTION

Species Reactivity	Human
Specificity	Detects recombinant human T-bet protein in Direct ELISA.
Source	Monoclonal Mouse IgG _{2B} Clone # 1091005
Purification	Protein A or G purified from cell culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human T-bet Glu326-Asp535 Accession # Q9UL17
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	0.5 µg/mL	Jurkat human acute T cell leukemia cell line, SUP-T1 human T cell lymphoblastic lymphoma cell line and Daudi human Burkitt's lymphoma cell line
Simple Western	20 µg/mL	Daudi human Burkitt's lymphoma cell line

DATA

Western Blot

Detection of Human T-bet/TBX21 by Western Blot. Western Blot shows lysates of Jurkat human acute T cell leukemia cell line, SUP-T1 human T cell lymphoblastic lymphoma cell line and Daudi human Burkitt's lymphoma cell line. PVDF membrane was probed with 0.5 µg/ml of Mouse Anti-Human T-bet/TBX21 Monoclonal Antibody (Catalog # MAB11637) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for T-bet/TBX21 at approximately 58 kDa (as indicated). This experiment was conducted under reducing conditions and using Western Blot Buffer Group 1.

Simple Western

Detection of Human T-bet/TBX21 by Simple Western™. Simple Western shows lysates of Daudi human Burkitt's lymphoma cell line, loaded at 0.5 mg/ml. A specific band was detected for T-bet/TBX21 at approximately 54 kDa (as indicated) using 20 µg/mL of Mouse Anti-Human T-bet/TBX21 Monoclonal Antibody (Catalog # MAB11637). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

Reconstitution	Reconstitute lyophilized material at 0.2 mg/ml in sterile PBS. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

T-box expressed in T cells (T-bet), also known as T-box transcription factor TBX21, is a 62 kDa member of the T-box family of transcription factors and the Tbr1 subfamily. Human T-bet is 535 amino acids in length and contains a T-box DNA binding domain (aa 136-327). Human T-bet shares 88% aa sequence identity with mouse T-bet. T-bet is a nuclear protein highly apparent in Th1-cells. Northern blot analysis revealed that it is also expressed in lung, thymus and spleen. Functionally, T-bet controls the expression of the Th1 cytokine, IFN γ , and initiates Th1 lineage development from naïve Th precursor cells by both activating Th1 genetic programs and by repressing the opposing Th2 programs.