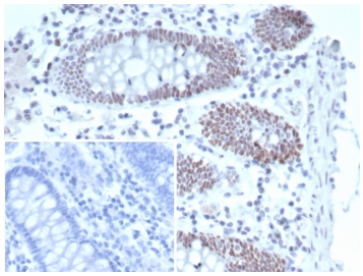
# TBX21 Antibody / T-bet Transcription Factor Antibody [clone TBX21/6724] (V4514)

| Catalog No. | Formulation | Size |
|---|---|---|
| V4514-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 100 ug |
| V4514-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 20 ug |
| V4514SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

**Bulk quote request**

| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Mouse |
| **Clonality** | Monoclonal (mouse origin) |
| **Isotype** | Mouse IgG1, kappa |
| **Clone Name** | TBX21/6724 |
| **Purity** | Protein A/G affinity |
| **UniProt** | Q9UL17 |
| **Localization** | Nucleus |
| **Applications** | Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT |
| **Limitations** | This TBX21 Antibody / T-bet Transcription Factor Antibody is available for research use only. |



TBX21 Antibody in Human Colon Carcinoma IHC. Immunohistochemistry testing of TBX21 Antibody / T-bet Transcription Factor Antibody, clone TBX21/6724, in FFPE human colon carcinoma tissue. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9, 10 mM Tris with 1 mM EDTA for 20 min followed by cooling prior to staining. Distinct nuclear immunoreactivity is observed in subsets of cells within the tested tissue. The inset shows the secondary-only negative control, with PBS used in place of the primary antibody.

## Description

TBX21 Antibody / T-bet Transcription Factor Antibody recognizes TBX21, a member of the T-box family of DNA-binding

transcription factors. Commonly known as T-bet, TBX21 is a major regulator of immune cell differentiation and is particularly associated with the development and function of T helper 1 (Th1) cells. T-box transcription factors share a conserved DNA-binding domain and regulate gene expression programs involved in cellular differentiation and development.

T-bet functions as a lineage-defining transcription factor that promotes differentiation of naive CD4-positive T cells toward the Th1 phenotype. One of its best-characterized functions is regulation of IFNG, which encodes interferon gamma, the hallmark cytokine of Th1 immune responses. TBX21 also promotes expression of other genes associated with Th1 identity, including CXCR3, while suppressing transcriptional programs associated with alternative T helper cell lineages. Through these activities, T-bet helps establish and maintain the characteristic gene-expression program of Th1 cells.

TBX21 activity extends beyond conventional CD4-positive Th1 cells. T-bet is expressed in natural killer cells and subsets of CD8-positive T cells, B cells and other immune populations, where it contributes to immune differentiation and effector responses. Human TBX21 expression correlates with IFNG expression in both Th1 and natural killer cells, and alterations in TBX21 function have been investigated in infectious disease, inflammatory and autoimmune disorders, immunodeficiency and cancer. These functions make T-bet an important marker and regulatory target in immunology research.

Clone TBX21/6724 is a mouse monoclonal antibody generated against recombinant human TBX21 protein and purified by Protein A/G affinity chromatography. NSJ Bioreagents provides this TBX21 Antibody for research into T-bet expression, T-cell differentiation and immune regulation. A T-bet Transcription Factor Antibody can support investigation of Th1 lineage development, IFN-gamma-associated responses and TBX21 biology.

Explore our Transcription Factor Antibodies page for additional reagents targeting proteins involved in transcriptional regulation, cell differentiation and gene expression.

## Application Notes

Optimal dilution of the TBX21 Antibody / T-bet Transcription Factor Antibody should be determined by the researcher.

## Immunogen

A recombinant partial protein sequence (within amino acids 1-200) from the human protein was used as the immunogen for the TBX21 antibody.

## Storage

Aliquot the TBX21 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

## Alternate Names

TBX21 antibody, T-bet antibody, T-box transcription factor 21 antibody, TBET antibody, T-PET antibody, TBLYM antibody


Copyright © NSJ Bioreagents. All rights reserved.