

## PRODUCT INFORMATION

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**Product name :** TBX21 antibody

**Product type :** Primary antibodies

**Description :** Mouse monoclonal to TBX21

**Immunogen :** 1 synthetic peptide (human) conjugated to KLH

**Reacts with :** Hu, Ms

**Tested applications :** ELISA, WB & IF

## GENE INFORMATION

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**Gene Symbol :** TBX21

**Gene Name :** T-box 21

**Ensembl ID :** ENSG00000073861

**Entrez GeneID :** 30009

**GenBank Accession number :** AF093098

**Swiss-Prot :** Q9UL17

**Molecular weight :** 58.3kDa

**Function :** Transcription factor that controls the expression of the TH1 cytokine, interferon-gamma. Initiates TH1 lineage development from naive TH precursor cells both by activating TH1 genetic programs and by repressing the opposing TH2 programs.

**Expected subcellular localization :** Nucleus.

**Expected tissue specificity :** T-cell specific.

**Summary :** This gene is a member of a phylogenetically conserved family of genes that share a common DNA-binding domain, the T-box. T-box genes encode transcription factors involved in the regulation of developmental processes. This gene is the human ortholog of mouse Tbx21/Tbet gene. Studies in mouse show that Tbx21 protein is a Th1 cell-specific transcription factor that controls the expression of the hallmark Th1 cytokine, interferon-gamma (IFNG). Expression of the human ortholog also correlates with IFNG expression in Th1 and natural killer cells, suggesting a role for this gene in initiating Th1 lineage development from naive Th precursor cells. [provided by RefSeq, Jul 2008]

## **APPLICATION NOTE**

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### **Recommended dilution :**

- **ELISA:** Antibody specificity was verified by direct ELISA against the 1 immunogen peptide. A titer of 42000 has been determined. Appropriate specificity controls were run.
- **WB:** Dilution 1/5000
- **IF:** Dilution 1/50

**Optimal dilutions/concentration should be determined by the end user.**

**Raised in :** Mouse

**Clonality :** Monoclonal

**Isotype :** IgG

**Purity :** Purified Antibody

**Concentration:** 2mg/ml

**Storage buffer :** Containing a final concentration of PBS/glycerol (V/V), 0.1% BSA and 0.01% Thimerosal.

**Form :** Liquid

**Storage instruction :** Store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

## WESTERN BLOT ON RECOMBINANT PROTEIN

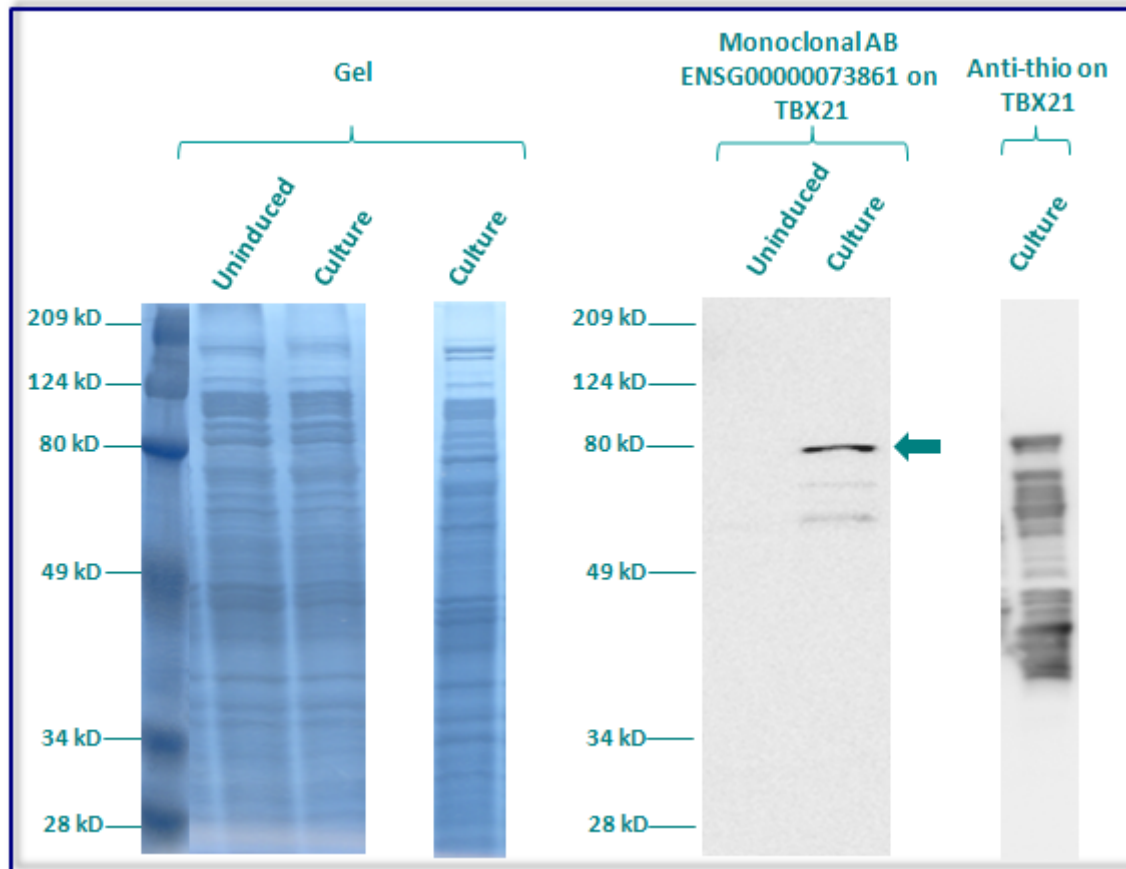
The monoclonal purified antibody ENSG00000073861 has tested at 1/5000 on uninduced (negative control) and induced culture of E.coli (one shot Top10 competent cells).

An anti-thio has been tested at 1/5000 on induced culture of E.coli (one shot Top10 competent cells) as a positive control.

Clone : 7C1H12E5, Isotype : G1; kappa

Plasmid name : pBAD-DEST49.

Molecular weight of TBX21 : 72.3kDa (58.3kDa + another 14kDa for the tag).



Gel concentration: 10%

Blocking: in 5% non-fat milk-PBST solution

1<sup>st</sup> Antibody: The antibodies are diluted in blocking buffer.

- Dilute the purified antibody ENSG00000073861 at 1:5000
- Dilute the anti-thio at 1:5000

60 minutes of incubation

2<sup>nd</sup> Antibody: The antibody is diluted in blocking buffer.

- Dilute the anti-Mouse IgG HRP conjugated at 1/10000

60 minutes of incubation

## IMMUNOFLUORESCENCE ANALYSIS

Immunofluorescence analysis of T-box transcription factor TBX21 (TBX21) expression in 6 cells lines (HELA, 293T/17, Capan-2, SAOS-2, SH-SY5Y, Skin 3,44). The monoclonal antibody ENSG00000073861 has been tested at 1/50.

**Green staining :** cytoskeleton (microtubules/ $\alpha$ -tubuline)

**Blue staining :** nucleus (Hoechst)

**Red staining :** anti- TBX21 antibody (purified)

**Expected subcellular location :** Nucleus

**Expected tissue specificity :** T-cell specific

