

Purified anti-TCF1 (TCF7) Antibody

Catalog# / Size	615701 / 25 µg 615702 / 100 µg
Clone	W16175A
Regulatory Status	RUO
Other Names	Transcription Factor 7, Transcription Factor 7 (T-Cell Specific, HMG-Box), T-Cell-Specific Transcription Factor 1, T-Cell Factor-7, T-Cell Factor 1, TCF1
Isotype	Rat IgG2a, κ
Description	TCF1 is the first identified member of the T-cell-specific transcription factor family. It plays an important role in T cell development and differentiation. TCF1 is inactivated by association with the transcriptional repressor TLE proteins. During Wnt signaling, the transcriptional coactivator CTNNB1 accumulates and, in turn, replaces the transcriptional repressor associated with TCF1. Interaction with CTNNB1 results in transactivation of TCF1 target genes. Deletion of TCF1 causes massive apoptosis of double positive thymocytes, suggesting that TCF1 is required for thymocyte survival during T cell development. In addition to its function in the thymus, TCF1 promotes T cell differentiation to Th2 cells in the periphery through transcriptional activation of GATA3.

Product Details

Verified Reactivity	Human, Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Partical recombinant mouse TCF1 corresponding to amino acid residues 54-303
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	WB - Quality tested IP - Verified
Recommended Usage	Each lot of this antibody is quality control tested by Western blotting . For Western blotting, the suggested use of this reagent is 0.25 - 1.0 µg per ml. For immunoprecipitation, the suggested use of this reagent is 2.5 µg per IP. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	<p>W16175A displayed a moderately higher affinity for TCF1/TCF7 than BioLegend clone 7F11A10 when tested for WB.</p> <p>W16175A and 7F11A10 demonstrated similar performances when tested for IP.</p> <p>W16175A stained HeLa cells, which lack TCF1/TCF7, when tested for ICC; we therefore do not recommend using this clone for the application.</p> <p>W16175A recognizes both mouse and human TCF1/TCF7 by western blot; 7F11A10 is specific for human TCF1/TCF7.</p> <p>Both W16175A and 7F11A10 recognize TCF1/TCF7 isoforms lacking the β-catenin binding domain.</p>
RRID	AB_2814458 (BioLegend Cat. No. 615701) AB_2814459 (BioLegend Cat. No. 615702)

Antigen Details

Structure	TCF1 is a 384 amino acid protein with a predicted molecular weight of 42 kD.
Distribution	Tregs/nuclear distribution
Function	TCF1 is a transcription factor, involved in the canonical Wntless/Integration 1 (Wnt) signaling pathway. TCF1 is essential for survival of CD4 ⁺ /CD8 ⁺ double positive thymocytes and differentiation of T cells in the periphery.
Cell Type	T cells
Biology Area	Transcription Factors
Antigen References	<ol style="list-style-type: none">1. Germar K, <i>et al.</i> 2011. <i>Proc Natl. Acad. Sci. USA</i> 108:20060-5.2. Wang R, <i>et al.</i> 2011. <i>J. Immunol.</i> 187:5964.3. Weber BN, <i>et al.</i> 2011. <i>Nature</i> 476:63.4. Jeannet G, <i>et al.</i> 2010. <i>Proc. Natl. Acad. Sci. USA</i> 107:9777-82.5. Staal FJ, <i>et al.</i> 1999. <i>Int. Immunol.</i> 11:317.

Gene ID [6932](#)

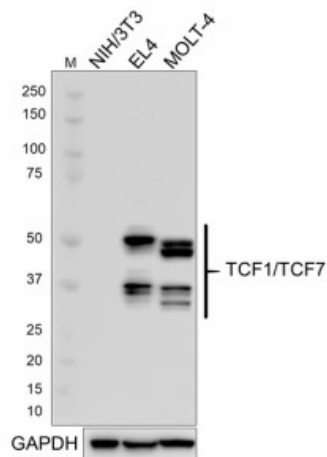
Related Protocols

[Western Blotting Protocol](#)

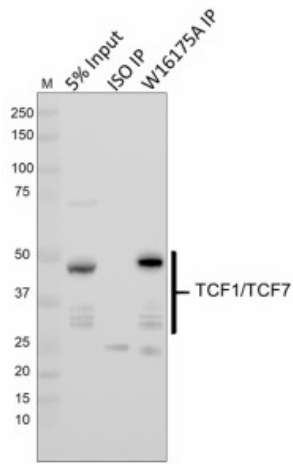
Other Formats

Purified anti-TCF1 (TCF7)

Product Data



Whole cell extracts (15 µg total protein) NIH/3T3 (negative control), EL4, and MOLT-4 cells were resolved by 4-12% Bis-Tris gel electrophoresis, transferred to a PVDF membrane, and probed with 1.0 µg/mL (1:500 dilution) of Purified anti-TCF1 (TCF7) Antibody, clone W16175A, overnight at 4°C. Proteins were visualized by chemiluminescence detection using HRP Goat anti-rat IgG Antibody (Cat. No. 405405) at a 1:3000 dilution. Direct-Blot™ HRP anti-GAPDH Antibody (Cat. No. 607904) was used as a loading control at a 1:10000 dilution (lower). Lane M: Molecular Weight marker.



Whole cell extracts (300 µg total protein) prepared from Jurkat cells were immunoprecipitated overnight with 2.5 µg of Purified Rat IgG2a, κ Isotype Control Antibody (ISO, Cat. No. 400502) or Purified anti-TCF1 (TCF7) Antibody, clone W16175A (W16175A IP). The resulting IP fractions and whole cell extract input (5%) were resolved by 4-12% Bis-Tris gel electrophoresis, transferred to a PVDF membrane, and probed with a separate anti-TCF1/TCF7 antibody raised with a different immunizing sequence. Lane M: Molecular Weight marker.

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