

Alexa Fluor® 647 anti-TCF1 (TCF7) Antibody

Catalog# / Size	655203 / 25 tests 655204 / 100 tests
Clone	7F11A10
Regulatory Status	RUO
Other Names	T-cell-specific transcription factor 1, transcription factor 7, TCF7
Isotype	Mouse IgG1, 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 thymocyte, suggesting that TCF1 is required for thymocyte survival during T cell development. In addition to its function in thymus, TCF1 promotes T cell differentiation to Th2 cells in the periphery through transcriptional activation of GATA3.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Partial TCF1 recombinant protein (116-334 aa)
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	ICFC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by intracellular flow cytometry using our True-Nuclear™ Transcription Factor Staining Protocol . For flow cytometric staining, the suggested use of this reagent is 5 µl per 10 ⁶ cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
Excitation Laser	Red Laser (633 nm)
Application Notes	NOTE: For flow cytometric staining with this clone, True-Nuclear™ Transcription Factor Buffer Set (Cat. No. 424401) offers improved staining and is highly recommended.
RRID	AB_2566619 (BioLegend Cat. No. 655203) AB_2566620 (BioLegend Cat. No. 655204)

Antigen Details

Structure	384 amino acids, predicted molecular weight of 42 kD. Contains a HMG box DNA binding domain and a CTNNB1 (β -catenin) binding domain.
Distribution	Nucleus
Function	TCF1 is a transcription factor, involved in the canonical Wingless/Integration 1 (Wnt) signaling pathway. TCF1 is essential for survival of CD4+CD8+ double positive thymocytes and differentiation of T cells in the periphery.
Interaction	TCF1 interacts with CTNNB1, TLE1, TLE2, TLE3, TLE4, and AES.
Cell Type	Tregs
Biology Area	Cell Biology, Immunology, Transcription Factors
Molecular Family	Nuclear Markers, TCRs
Antigen References	<ol style="list-style-type: none"> 1. Mao CD, <i>et al.</i> 2011. <i>Crit. Rev. Eukaryot. Gene Expr.</i> 21:207. 2. Germar K, <i>et al.</i> 2011. <i>P. Natl. Acad. Sci. USA</i> 108:20060. 3. Wang R, <i>et al.</i> 2011. <i>J. Immunol.</i> 187:5964. 4. Weber BN, <i>et al.</i> 2011. <i>Nature</i> 476:63. 5. Jeannot G, <i>et al.</i> 2010. <i>P. Natl. Acad. Sci. USA</i> 107:9777. 6. Staal FJ, <i>et al.</i> 1999. <i>Int. Immunol.</i> 11:317.
Gene ID	6932

Related Protocols

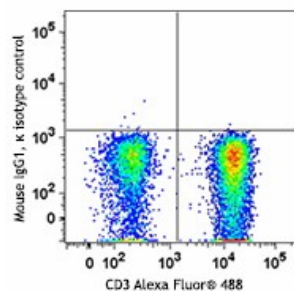
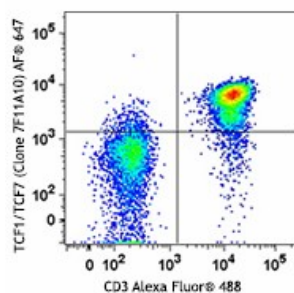
[True-Nuclear™ Transcription Factor Staining Protocol for 96-Well U Bottom Plate](#)

[True-Nuclear™ Transcription Factor Staining Protocol for 5mL Tubes](#)

Other Formats

Purified anti-TCF1 (TCF7), Alexa Fluor® 647 anti-TCF1 (TCF7), PE anti-TCF1 (TCF7), Direct-Blot™ HRP anti-TCF1 (TCF7)

Product Data



Human peripheral blood lymphocytes were surface stained with CD3 Alexa Fluor® 488 and then treated with True-Nuclear™ Transcription Factor Buffer Set. Cells were then stained with TCF1/TCF7 (clone 7F11A10) Alexa Fluor® 647 (top) or mouse IgG1, κ Alexa Fluor® 647 isotype control (bottom).

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