

**Mouse Anti-TCR  $\beta$ /TCR Beta F1 [G11]: MC0411, MC0411RTU7**

**Intended Use:** For Research Use Only

**Description:** The ability of T cell receptors (TCR) to discriminate foreign from self-peptides presented by major histocompatibility complex (MHC) class II molecules is essential for an effective adaptive immune response. TCR recognition of self-peptides has been linked to autoimmune disease. Mutant self-peptides have been associated with tumors. Engagement of TCRs by a family of bacterial toxins known as superantigens has been responsible for toxic shock syndrome. Autoantibodies to V beta segments of T cell receptors have been isolated from patients with rheumatoid arthritis (RA) and systemic lupus erythematosus (SLE). The autoantibodies block TH1-mediated inflammatory autodestructive reactions and are believed to be a method by which the immune system compensates for disease (ref5). T Cell and TCR Diversity Most human T cells express the TCR alpha-beta and either CD4 or CD8 molecule (single positive, SP). A small number of T cells lack both CD4 and CD8 (double negative, DN). Increased percentages of alpha-beta DN T cells have been identified in some autoimmune and immunodeficiency disorders. Gamma-delta T cells are primarily found within the epithelium. They show less TCR diversity and recognize antigens differently than alpha-beta T cells. Subsets of gamma-delta T cells have shown antitumor and immunoregulatory activity.

**Specifications:**

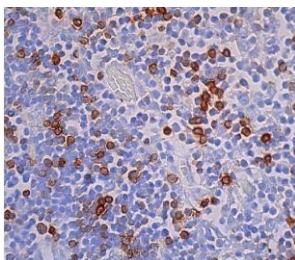
Clone: G11  
 Source: Mouse  
 Isotype: IgG1k  
 Reactivity: Human  
 Immunogen: The constant region of human TCR  $\beta$   
 Localization: Membrane  
 Formulation: Antibody in PBS pH7.4, containing BSA and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, ELISA, IF, IP, WB  
 Package:

Description	Catalog No.	Size
TCR $\beta$ /TCR Beta F1 Concentrated	MC0411	1 ml
TCR $\beta$ /TCR Beta F1 Prediluted	MC0411RTU7	7 ml

**IHC Procedure\*:**

Positive Control Tissue: Tonsil, fetal thymus  
 Concentrated Dilution: 50-200  
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human fetal thymus stained with anti-TCR  $\beta$  using DAB

**References:**

1. SNX17 affects T cell activation by regulating TCR and integrin recycling. Douglas G Osborne, et al. J Immunol. May 1;194(9):4555-66, 2015.
2. Hydroa vacciniforme is associated with increased numbers of Epstein-Barr virus-infected  $\gamma\delta$ T cells
3. Yoji Hirai, et al. J Invest Dermatol. May;132(5):1401-8, 2012.

Doc. 100-MC0411  
Rev. A