

Mouse Anti-TCR β /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:

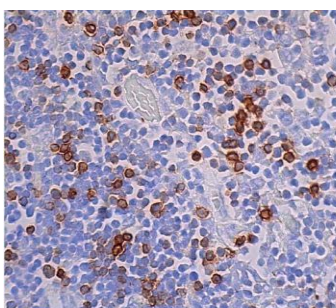
Clone:	G11
Source:	Mouse
Isotype:	IgG1k
Reactivity:	Human
Immunogen:	The constant region of human TCR β
Localization:	Membrane, cytoplasm
Formulation:	Antibody in PBS pH7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN ₃)
Storage:	Store at 2°- 8°C
Applications:	IHC, ELISA, IF, IP, WB
Package:	

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

IHC Procedure*:

Positive Control Tissue:	Tonsil, fetal thymus, lymph node
Concentrated Dilution:	50-200
Pretreatment:	Citrate pH6.0 or EDTA pH8.0, 15 min Pressure Cooker or 30-60 min 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 β 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. Yoji Hirai, et al. J Invest Dermatol. May;132(5):1401-8, 2012.

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Rev. A