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**Anti-TCR alpha**

Cat #: HM1365  
Rabbit polyclonal IgG  
0.2 µg/µl, store at 4 °C

For research use only

**BACKGROUND**

The T cell receptor (TCR) is a complex of integral membrane proteins that participates in the activation of T cells in response to the presentation of antigen. TCR is composed of either  $\alpha$  and  $\beta$  or  $\gamma$  and  $\delta$  chains. The vast majority of circulating T cells (95%) express the  $\alpha/\beta$  heterodimer while roughly 2-5% express the  $\gamma/\delta$  heterodimer. The T cell antigen receptor (TCR) recognizes foreign antigens and translates such recognition events into intracellular signals that elicit a change in the cell from a dormant to an activated state. This activation involves other membrane-associated molecules that couple the extracellular liganding event to downstream signaling pathways such as protein phosphorylation, the release of inositol phosphates and the elevation of intracellular calcium levels.

**SPECIFICITY**

This antibody specifically reacts with TCR of human, mouse and rat origin.

The antibody can be used in Western blotting, immunoprecipitation and immunohistochemistry.

Molecular Weight of TCR alpha; 34 kDa.

Western blotting positive controls: MOLT-4

**IMMUNOGEN**

A synthetic peptide derived from N-terminus of human TCR protein.

**STORAGE**

This antibody is stable for 24 months when stored at 2-8°C.

**REFERENCES**

1. Weiss, A., Irving, B.A., Tan, L.K., and Koretzky, G.A. 1991. Signal transduction by the T cell antigen receptor. *Sem. Imm.* 3: 313-324.
2. Julius, M., Maroun, C.R., and Haughn, L. 1993. Distinct roles for CD4 and CD8 as co-receptors in antigen receptor signalling. *Immunol. Today* 14: 177-183.
3. Ehrlich, E.W., Devaux, B., Rock, E.P., Jorgensen, J.L., Davis, M.N., and Chien, Y.H. 1993. T cell receptor interaction with peptide/major histocompatibility complex (MHC) and superantigen/MHC ligands is dominated by antigen. *J. Exp. Med.* 178: 713-722.

4. JE van Leeuwen and LE Samelson 1999. T cell antigen-receptor signal transduction. *Curr Opin Immunol* 11, 242-8.
5. I Tamir and JC Cambier 1998. Antigen receptor signaling: integration of protein tyrosine kinase functions. *Oncogene* 17, 1353-64
6. LP Kane, J Lin and A Weiss. 2000. Signal transduction by the TCR for antigen *Curr Opin Immunol.* 12, 242-9.

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