

Product datasheet for **AM08119FC-N**

T Cell Receptor (TCR) V beta-2 Mouse Monoclonal Antibody [Clone ID: TCR3]

Product data:

Product Type:	Primary Antibodies
Clone Name:	TCR3
Applications:	FC
Recommended Dilution:	Flow Cytometry: $< / = 1 \mu\text{g}/10\text{e}6$ cells. (Ref.1)
Reactivity:	Chicken
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Specificity:	<p>This antibody recognizes Chicken TCR Valpha/beta (Vbeta2). TCR3 precipitates a CD3-associated heterodimer of Mr 88-kDa (two bands of Mr 48-kDa and 40-kDa upon reduction) on chicken peripheral blood T cells. (Ref.1,2)</p> <p>Deglycosylation of the heterodimer yields two polypeptides of Mr 34-kDa and 31-kDa from TCR3 precipitates. In the chicken, two distinct subpopulations of alpha beta T cells appear in the thymus subsequent to the appearance of gamma delta T cells.</p> <p>In the Chicken, two distinct subpopulations of alpha beta T cells appear in the thymus subsequent to the appearance of gamma delta T cells. These subpopulations, originally denoted as TCR2 and TCR3 (Ref.1,2) arise sequentially in the thymus during ontogeny and are now known to represent two distinct Vbeta families, Vbeta1 and Vbeta2, respectively. (Ref.3)</p> <p>This antibody reacts with approximately 9% of thymocytes, 15-25% of blood mononuclear cells and 13% of splenocytes young adult chickens. Two-color immunofluorescence has revealed that the TCR3+ thymocytes include CD4+CD8-, CD4-CD8+, CD4+CD8+ and CD4-CD8- subpopulations. The TCR3+ thymocytes can be separated into two subsets. One subset is characterized by relatively low levels of expression of the TCR3/CD3 complex and most of the cells in this subset are CD4+CD8+. Cells in the other subset express TCR3/CD3 in higher density and are either CD4+CD8- or CD4-CD8+, corresponding to the more mature medullary subset of thymocytes. The TCR3+ cells in the blood and spleen express relatively high levels of the TCR3/CD3 receptor complex and are "single positive, with CD4+CD8- cells being four times more frequent than the CD4-CD8+ cells (ca. 80% CD4+ vs ca. 20%CD8+). (Ref.1,2)</p>



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Formulation: PBS containing 0.09% Sodium Azide as preservative.
Label: FITC
State: Liquid purified Ig fraction.
Label: Fluorescein Isothiocyanate Isomer 1

Concentration: lot specific

Conjugation: FITC

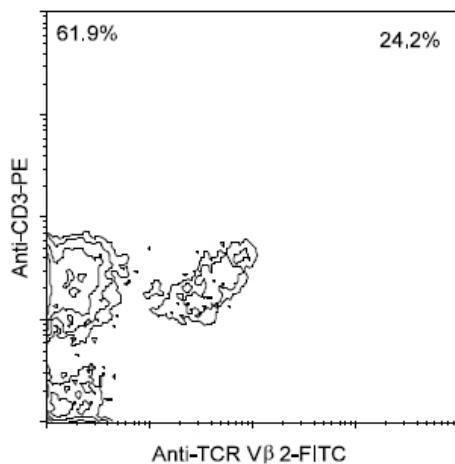
Storage: Store the antibody undiluted at 2-8°C for one month or in (aliquots) at -20°C for longer.
This product is photosensitive and should be protected from light.
Avoid repeated freezing and thawing.

Stability: Shelf life: one year from despatch.

Background: The receptors on T cells consist of immunoglobulin like integral membrane glycoproteins containing 2 polypeptide subunits, alpha and beta, of similar molecular weight, 40 to 55 kD in the human. Like the immunoglobulins of the B cells, each T cell receptor subunit has, external to the cell membrane, an N terminal variable domain and a C terminal constant domain. T cell receptors recognise foreign antigens which have been processed as small peptides and bound to major histocompatibility complex molecules at the surface of antigen presenting cells. Each T cell receptor is a dimer consisting of one alpha and one beta chain or one delta and one gamma chain. In a single cell, the T cell receptor loci are rearranged and expressed in the order delta, gamma, beta, and alpha. If both delta and gamma rearrangements produce functional chains, the cell expresses delta and gamma. If not, the cell proceeds to rearrange the beta and alpha loci.

Synonyms: TCR-Vbeta2, TCR-VB2

Product images:



Immunofluorescent Staining: Chicken PBMC were double stained with Mouse anti-Chicken TCR alpha/beta-FITC and Mouse anti-Chicken CD3-PE. Small lymphocytes were then gated and analyzed on a FACScan (TM) flow cytometer (BDIS, San Jose, CA). Amount Used: 1 g/10