**TCR V alpha 2 Monoclonal Antibody (F1), FITC**

**Catalog Number:** TCR2663

**Species Reactivity**
- **Tested species reactivity:** Human, Non-human primate
- **Published species reactivity:** Non-human primate, Human

**Tested Applications**
- **Flow Cytometry (Flow):** 1-2 µg/test

**Published Applications**
- **Western Blot (WB):** See 1 publications below
- **Immunohistochemistry (IHC):** See 4 publications below
- **Flow Cytometry (Flow):** See 1 publications below

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

**Background/Target Information**

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. 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.

**For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.**
Advanced Verification Data

TCR V alpha 2 Antibody (TCR2663) in RE

The specificity of FITC labeled anti-TCR V alpha 2 (F1) monoclonal antibody (Product # TCR2663) was demonstrated by the flow cytometry detection of TCR V alpha 2 (F1) on TCR V alpha 2 positive MOLT16 cells (left panel) compared to negative control HPB-ALL cells (right panel).

Product Images For TCR V alpha 2 Monoclonal Antibody (F1), FITC

TCR v alpha 2 Antibody (TCR2663) in Flow

Flow cytometry analysis of TCR V alpha 2 (F1) on TCR V alpha 2 positive MOLT16 cells (left panel) or negative control HPB-ALL cells (right panel).

Equal numbers of cells were stained with a FITC labeled TCR V alpha 2 (F1) monoclonal antibody (Product # TCR2663), or were left unstained. 5ul of primary antibody were used per test. All antibody incubations were performed for 30 minutes at room temperature. A representative 10,000 cells were acquired for each sample.
**PubMed References For TCR V alpha 2 Monoclonal Antibody (F1), FITC**

### 1 Western Blot References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human / Not Cited</strong></td>
<td>TCR2663 was used in western blot to study the effect of the Wilms tumor antigen 1 disruption</td>
</tr>
</tbody>
</table>


"Targeting the Wilms tumor antigen 1 by TCR gene transfer: TCR variants improve tetramer binding but not the function of gene modified human T cells."


PubMed Article URL: http://dx.doi.org/null

### 4 Immunohistochemistry References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human / 1:10</strong></td>
<td>TCR2663 was used in immunohistochemistry to investigate the expression of CD8+ T cells in patients with hypopigmented mycosis fungoides</td>
</tr>
</tbody>
</table>

**The American journal of surgical pathology (Apr 2002; 26: 450)**

"Hypopigmented mycosis fungoides: frequent expression of a CD8+ T-cell phenotype."

Author(s): El-Shabrawi-Caelen L, Cerroni L, Medeiros L J, McCalmont TH

PubMed Article URL: http://dx.doi.org/null

| **Human / 1:100** | TCR2663 was used in immunohistochemistry to investigate the expression and distribution of laminins, fibronectin, and tenascin in celiac intestinal mucosa |


"Unaltered distribution of laminins, fibronectin, and tenascin in celiac intestinal mucosa."

Author(s): Korhonen M, Ornio M, Burgeson RE, Virtanen I, Savilahti E

PubMed Article URL: http://dx.doi.org/10.1177/002215540004800714

| **Human / 1:80** | TCR2663 was used in immunohistochemistry to study the roles of intestinal mucosa in the pathogenesis of IgA nephropathy |

**The American journal of surgical pathology (Mar 2002; 26: 450)**

"Small bowel T cells, HLA class II antigen DR, and GroEL stress protein in IgA nephropathy."

Author(s): Rantala I, Collin P, Holm K, Kainulainen H, Mustonen J, Mäki M

PubMed Article URL: http://dx.doi.org/10.1177/002215540004800714

| **Human / Not Cited** | TCR2663 was used in immunohistochemistry to characterize T cell lymphoma cells from a Sézary syndrome patient |

**Clinical and experimental immunology (Aug 1998; 113: 190)**

"Immunological study on CD3 defective cutaneous T cell lymphoma cells from a patient with Sézary syndrome."

Author(s): Sano S, Matsui Y, Itami S, Yoshikawa K

PubMed Article URL: http://dx.doi.org/null

### 1 Flow Cytometry References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-human primate / Not Cited</strong></td>
<td>TCR2663 was used in flow cytometry to investigate the variants of T-cell receptors in macaques</td>
</tr>
</tbody>
</table>


"Characterization of T-cell subsets and T-cell receptor subgroups in pigtailed macaques using two- and three-color flow cytometry."

Author(s): Axberg I, Gale MJ, Aflar B, Clark EA

PubMed Article URL: http://dx.doi.org/null