# Recombinant CD3D Monoclonal Antibody

**catalog number: AN301813L**

**Note:** *Centrifuge before opening to ensure complete recovery of vial contents.*

## Description

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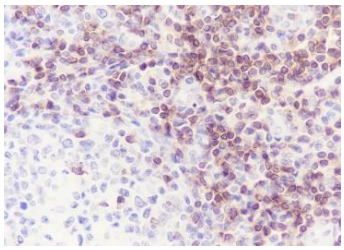
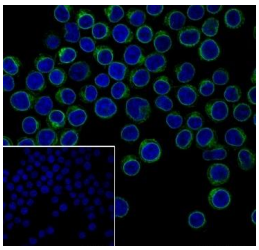
|---|---|
| **Reactivity** | Human; |
| **Immunogen** | Recombinant human CD3D fragment |
| **Host** | Rabbit |
| **Isotype** | IgG, κ |
| **Clone** | A525 |
| **Purification** | Protein A purified |
| **Buffer** | PBS, 50% glycerol, 0.05% Proclin 300, 0.05% protein protectant. |

| Applications | Recommended Dilution |
|---|---|
| **WB** | 1:2000-1:10000 |
| **IHC** | 1:200-1:1000 |
| **IF** | 1:50-1:200 |
| **FCM** | 1:50-1:100 |
| **IP** | 1:25-1:50 |



Immunohistochemistry of paraffin-embedded Human tonsil using CD3D Monoclonal Antibody at dilution of 1:1000.



Immunofluorescent analysis of (4% Paraformaldehyde) fixed Jurkat cells using anti-CD3D Monoclonal Antibody at dilution of 1:200.

## Preparation & Storage

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|---|---|
| **Storage** | Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles. |
| **Shipping** | Ice bag |

## Background

CD3D is a component of the TCR-CD3 complex, which is present on T-lymphocyte cell surface that plays an essential role in adaptive immune response. When antigen presenting cells (APCs) activate T-cell receptor (TCR), TCR-mediated signals are transmitted across the cell membrane by the CD3 chains CD3D, CD3E, CD3G and CD3Z. All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain. Upon TCR engagement, these motifs become phosphorylated by Src family protein tyrosine kinases LCK and FYN, resulting in the activation of downstream signaling pathways. In addition, CD3D plays an essential role in thymocyte differentiation. It participates in correct intracellular TCR-CD3 complex assembly and surface expression. In absence of a functional TCR-CD3 complex, thymocytes are unable to differentiate properly. It interacts with CD4 and CD8 and thus serves to establish a functional link between the TCR and coreceptors CD4 and CD8, which is needed for activation and positive selection of CD4 or CD8 T-cells.