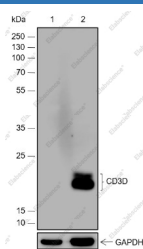
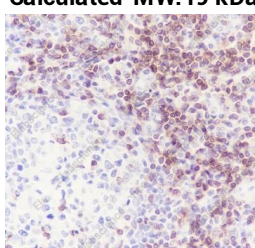
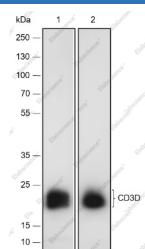
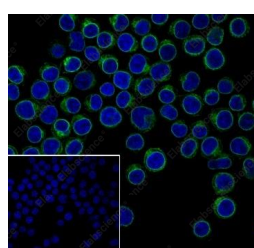


## Recombinant CD3D Monoclonal Antibody

catalog number: **AN301813L**

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

| Description         |                                                                 |
|---------------------|-----------------------------------------------------------------|
| <b>Reactivity</b>   | Human                                                           |
| <b>Immunogen</b>    | Recombinant human CD3D fragment                                 |
| <b>Host</b>         | Rabbit                                                          |
| <b>Isotype</b>      | Rabbit IgG                                                      |
| <b>Clone</b>        | C311435                                                         |
| <b>Purification</b> | Protein A purified                                              |
| <b>Buffer</b>       | PBS, 50% glycerol, 0.05% Proclin 300, 0.05% protein protectant. |
| Applications        |                                                                 |
| <b>WB</b>           | 1:2000-1:10000                                                  |
| <b>IHC</b>          | 1:200-1:1000                                                    |
| <b>IF</b>           | 1:50-1:200                                                      |
| <b>FCM</b>          | 1:50-1:100                                                      |
| <b>IP</b>           | 1:25-1:50                                                       |

| Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Western Blot with CD3D Monoclonal Antibody at dilution of 1:10000. Lane 1: THP-1(Negative control) , Lane 2: Jurkat</p> <p><b>Observed-MW:23 kDa</b><br/><b>Calculated-MW:19 kDa</b></p>  <p>Immunohistochemistry of paraffin-embedded Human tonsil using CD3D Monoclonal Antibody at dilution of 1:1000.</p> |  <p>Western Blot with CD3D Monoclonal Antibody at dilution of 1:5000. Lane 1: HuT-78, Lane 2: MOLT-4</p> <p><b>Observed-MW:23 kDa</b><br/><b>Calculated-MW:19 kDa</b></p>  <p>Immunofluorescent analysis of (4% Paraformaldehyde) fixed Jurkat cells using anti-CD3D Monoclonal Antibody at dilution of 1:200.</p> |

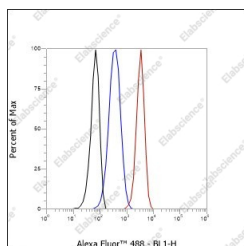
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Web: [www.elabscience.com](http://www.elabscience.com)

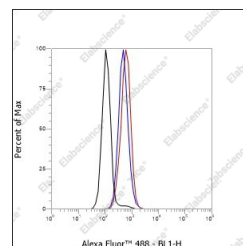
Tel: 1-832-243-6086  
Email: [techsupport@elabscience.com](mailto:techsupport@elabscience.com)

Fax: 1-832-243-6017

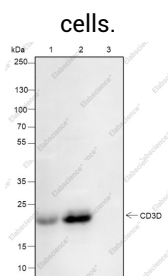
Rev. V1.3



Flow cytometric analysis of human CD3D expression on Jurkat cells. Cells were stained with purified anti-Human CD3D, then a Alexa Fluor 488-conjugated second step antibody. The histogram were derived from events with the forward and side light-scatter characteristics of intact cells.



Flow cytometric analysis of human CD3D expression on THP-1 (Negative cell line) cells. Cells were stained with purified anti-Human CD3D, then a Alexa Fluor 488-conjugated second step antibody. The histogram were derived from events with the forward and side light-scatter characteristics of intact cells.



Immunoprecipitation analysis using anti-CD3D Monoclonal Antibody. Western blot was performed from the immunoprecipitate using CD3D Monoclonal Antibody at a dilution of 1:50. Lane 1: 10% Input, Lane 2: CD3D Monoclonal Antibody, Lane 3: Rabbit monoclonal IgG Isotype

**Observed-MW: 23 kDa**

**Calculated-MW: 19 kDa**

## Preparation & Storage

**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.

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