

## CD3D Recombinant Rabbit Monoclonal Antibody Product Datasheet

Catalog# BX50300

Clone# BP6277

**Predicted Molecular Wt:** 19kDa  
**Species Cross-reactivity:** Human  
**Applications:** IHC-P

**Purity:** ProA affinity purified IgG  
**Form:** Liquid  
**Swissprot ID:** P04234

### Background:

When T cells encounter antigens via the T cell receptor (TCR), information about the quantity and quality of antigens is relayed to the intracellular signal transduction machinery. This activation process depends mainly on CD3 (Cluster of Differentiation 3), a multiunit protein complex that directly associates with the TCR. CD3 is composed of four polypeptides:  $\zeta$ ,  $\gamma$ ,  $\epsilon$  (CD3E), and  $\delta$  (CD3D). Each of these polypeptides contains at least one immunoreceptor tyrosine-based activation motif (ITAM). Engagement of the TCR complex with foreign antigens induces tyrosine phosphorylation in the ITAM motifs and phosphorylated ITAMs function as docking sites for signaling molecules such as ZAP-70 and the p85 subunit of PI-3 kinase. TCR ligation also induces a conformational change in CD3D, such that a proline region is exposed and then associates with the adaptor protein Nck.

CD3D is generally expressed in T cells and their source tumor cells.

Defects in CD3D are a cause of severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-positive/NK-cell-positive (T(-)/B(+)/NK(+)) SCID).

### Subcellular location:

Membrane

### Recommended Method:

Heat induced epitope retrieval with Tris-EDTA buffer (pH 9.0), primary antibody incubate at RT (18°C-25°C) for 30 minutes.

### Immunogen:

Synthetic peptide. This information is proprietary to Biolynx.

### Storage Buffer:

PBS 59%, Sodium azide 0.01%, Glycerol 40%, BSA 0.05%.

### Storage Conditions:

-25°C to -18°C

### Shipment Instructions:

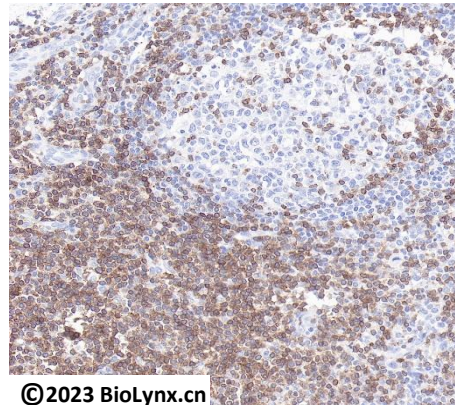
Shipped on blue ice. Upon delivery store at -25°C to -18°C. Avoid freeze / thaw cycles.

### Recommended Dilution:

IHC-P: 1:100-1:200


### Background References:

1. Kuhns, M.S. et al. (2006) Immunity 24, 133-139.
2. Pitcher, L.A. and van Oers, N.S. (2003) Trends Immunol. 24, 554-560.



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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil labelling CD3D with BP6277.

Product QC'd by: 

For research use only. Not for use in diagnostic or therapeutic applications.