

## CD3 Recombinant Rabbit Monoclonal Antibody Product Datasheet

Catalog# BX22300120

Clone# RR612

**Predicted Molecular Wt:** 23kDa

**Purity:** ProA affinity purified IgG

**Species Cross-reactivity:** Human

**Form:** Liquid

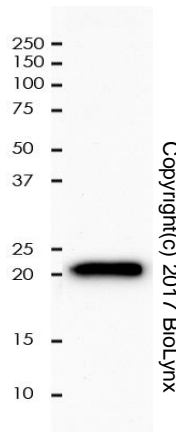
*Species cross-reactivity determined by WB*

**Swissprot ID:** P07766

**Applications:** WB IHC-P IF/ICC FC IP

### Background:

The CD3 protein is a T-cell marker, a complex of four structurally distinct membrane glycoprotein isoforms, 20-50 kDa, comprising extracellular, transmembrane and intracellular domains. The CD3 complex is responsible for mediating signal transduction to the internal environment upon antigenic recognition by TCR, causing T-cell proliferation and release of cytokines. Except for a weak expression in Purkinje cells (with some of the Abs) and activated NK-cells, CD3 is found only in T-cells.



All lane: Anti-CD3 antibody at 1:10,000 dilution

Predicted MW: 23 kDa  
 Observed MW: 23 kDa

Lane 1: JurKat

Lysate at 10 µg per lane  
 2nd Ab:  
 G&R HRP(H+L) 1:4,000

Exposure: 60s

### Immunogen:

A synthetic peptide corresponding to residues on the N-terminus of human CD3 was used as an immunogen.

### Storage Buffer:

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

### Storage conditions:

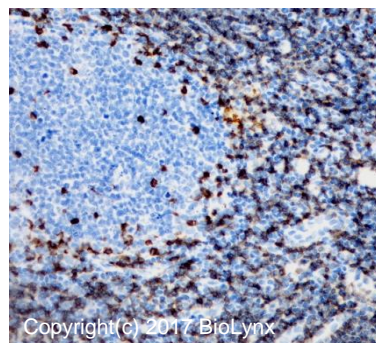
-20°C.

### Storage instructions:

Shipped on blue ice. Upon delivery, aliquot, and store at -20°C. Avoid freeze / thaw cycles.

### Recommended Dilutions:

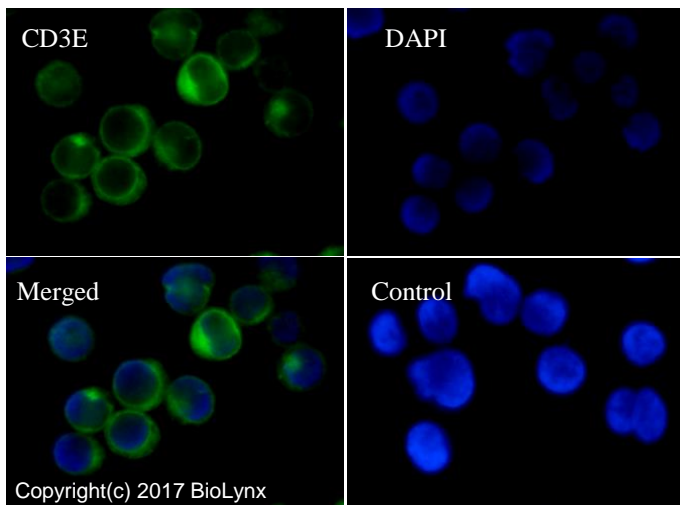
WB: 1:10,000 - 1: 50,000  
 IHC-P: 1:100 - 1:200  
 IF/ICC: 1:50 - 1:2,000  
 FC: 1:200 - 1:1,000  
 IP: 1:15



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil tissue labelling CD3 with RR612 at 1:200. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0.

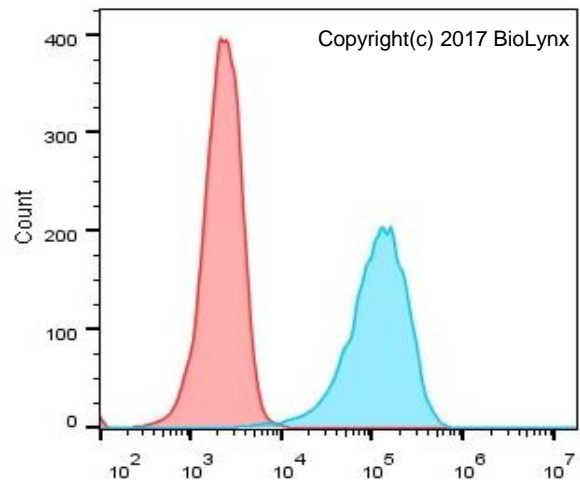
### Background References:

- Berglin L et al. PLoS One 9:e105375 (2014).
- Huang YH et al. Nature 517:386-90 (2015).

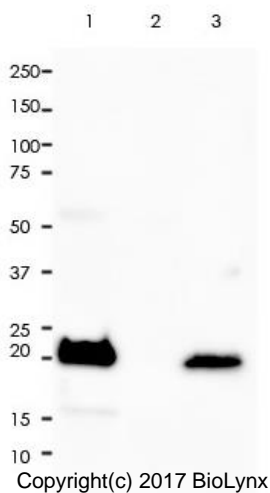


RR612 staining CD3 in Jurkat cells by IF/ICC (immunofluorescence/immunocytochemistry). Cells were fixed with paraformaldehyde, permeabilized with 0.1% Triton X-100 and blocked with 10% goat serum for half an hour at room temperature. Samples were incubated with primary antibody (1:50) at 4°C. An Alexa Fluor® 488-conjugated Goat Anti-Rabbit IgG polyclonal was used as the secondary antibody (1:500). DAPI (blue) was used as the nuclear counter stain.

Control: PBS and secondary antibody, An Alexa Fluor® 488-conjugated Goat Anti-Rabbit IgG (1:500).



Overlay histogram showing Jurkat cells stained with RR612 (Blue). The cells were fixed with 4% paraformaldehyde for 10 min. The cells were then incubated in the antibody (RR612, 1:1,000 dilution) in 1x PBS/1% BSA for 30 min at room temperature. The secondary antibody used was a Goat Anti-Rabbit Alexa Fluor® 488 (IgG H+L) at 1:2,000 dilution for 20 min at room temperature. Unlabelled sample (Red) was used as a control.



CD3 was immunoprecipitated from 0.4mg of Molt-4 whole cell lysate with RR612 at 1:15 dilution.  
 2nd Ab:  
 GAR HRP for IP 1:500

Lane 1: RR612 IP in Molt-4 whole cell lysate  
 Lane 2: Rabbit IgG instead of RR612 in Molt-4 whole cell lysate  
 Lane 3: Molt-4 whole cell lysate, 10 µg (input)

Exposure: 120s

Product QC'd by:



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