BOSTER BIOLOGICAL TECHNOLOGY
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888-466-3604 | support@bosterbio.com | www.bosterbio.com

# Anti-Cyclin T1 Antibody Picoband® (monoclonal, 3B7)

**Catalog Number:** M02703

## About CCNT1

Cyclin-T1 is a protein that in humans is encoded by the CCNT1 gene. This gene encodes a member of the highly conserved cyclin C subfamily. The encoded protein tightly associates with cyclin-dependent kinase 9, and is a major subunit of positive transcription elongation factor b (p-TEFb). In humans, there are multiple forms of positive transcription elongation factor b, which may include one of several different cyclins along with cyclin-dependent kinase 9. The complex containing the encoded cyclin and cyclin-dependent kinase 9 acts as a cofactor of human immunodeficiency virus type 1 (HIV-1) Tat protein, and is both necessary and sufficient for full activation of viral transcription. This cyclin and its kinase partner are also involved in triggering transcript elongation through phosphorylation of the carboxy-terminal domain of the largest RNA polymerase II subunit. Overexpression of this gene is implicated in tumor growth. Alternative splicing results in multiple transcript variants.

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## Overview

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| Product Name | Anti-Cyclin T1 Antibody Picoband® (monoclonal, 3B7) |
| Reactive Species | Human, Monkey |
| Description | Boster Bio Anti-Cyclin T1 Antibody Picoband® (monoclonal, 3B7) catalog # M02703. Tested in Flow Cytometry, WB applications. This antibody reacts with Human, Monkey. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance. |
| Application | Flow Cytometry, WB |
| Clonality | Monoclonal 3B7 |
| Formulation | Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4. |
| Storage Instructions | At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing. |
| Host | Mouse |
| Uniprot ID | O60563 |

## Technical Details

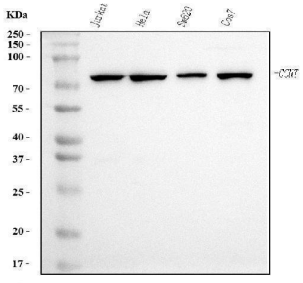
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| Immunogen | A synthetic peptide corresponding to a sequence in the middle region of human Cyclin T1, different |

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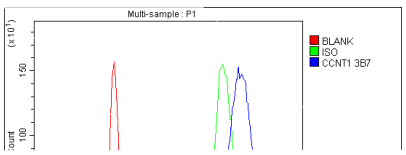
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| | from the related mouse sequence by one amino acid. |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot. |
| Cross Reactivity | No cross-reactivity with other proteins. |
| Isotype | Mouse IgG2b |
| Form | Lyophilized |
| Concentration | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. |
| Purification | Immunogen affinity purified. |
| Suggested Dilutions | Western blot, 0.25-0.5 ug/ml, Human, Monkey<br>Flow Cytometry (Fixed), 1-3 ug/1x$10^6$ cells, Human<br><br>Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells. |

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# Anti-Cyclin T1 Antibody Picoband® (monoclonal, 3B7) (M02703) Images




Western blot analysis of Cyclin T1 using anti-Cyclin T1 antibody (M02703). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Jurkat whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human SW620 tissue lysates, Lane 4: monkey COS-7 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Cyclin T1 antigen affinity purified monoclonal antibody (Catalog # M02703) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for Cyclin T1 at approximately 81 kDa. The expected band size for Cyclin T1 is at 81 kDa.




Flow Cytometry analysis of U20S cells using anti-Cyclin T1 antibody (M02703). Overlay histogram showing U20S cells stained with M02703 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Cyclin T1 Antibody (M02703, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



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