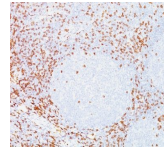


# CD7 Monoclonal Mouse Antibody (T3-3A1)



## Product Description

Recognizes a protein of 40 kDa, identified as CD7, a member of the immunoglobulin gene superfamily. Its N-terminal amino acids 1-107 are highly homologous to Ig kappa-L chains whereas the carboxyl-terminal region of the extracellular domain is proline-rich and has been postulated to form a stalk from which the Ig domain projects. CD7 is expressed on the majority of immature and mature T-lymphocytes, and T cell leukemia. It is also found on natural killer cells, a small subpopulation of normal B cells and on malignant B cells. Cross-linking surface CD7 positively modulates T cell and NK cell activity as measured by calcium fluxes, expression of adhesion molecules, cytokine secretion and proliferation. CD7 associates directly with phosphoinositol 3'-kinase. CD7 ligation induces production of D-3 phosphoinositides and tyrosine phosphorylation. Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors. **Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order. **Catalog number key for antibody number 0978, Anti-CD7 (T3-3A1)**

## References

Note: References for this clone sold by other suppliers may be listed for expected applications.

1. PNAS USA (1979) 76: 5829-5833.
2. PNAS USA (1980) 77(5): 2914-2918. (IP; functional studies)
3. J Immunol Meth (1987) 96(2), 201-209. (cell ELISA)
4. PNAS USA (1996) 93: 10348-10353. (cell depletion)
5. Blood (1998) 91(8) 2760-2771. (Flow)
6. J Cell Biol (1998) 142(5): 1245-1256. (IF; IP)
7. Theranostics (2018) 8(21): 6070-6087. (mAb characterization; in vivo imaging)

## Product attributes

|                                       |  |
|---------------------------------------|--|
| Antibody number                       | #0978  |
| Antibody reactivity (target)          | CD7  |
| Antibody type                         | Primary  |
| Host species                          | Mouse  |
| Clonality                             | Monoclonal   |
| Clone                                 | T3-3A1   |
| Isotype                               | IgG1, kappa  |
| Molecular weight                      | 40 kDa   |
| Synonyms                              | CD27 ligand (CD27L); CD27LG; K124; Surface antigen CD70; Tumor necrosis factor (ligand) superfamily, member 7 (TNFSF7)   |
| Human gene symbol                     | CD7  |
| Entrez gene ID                        | 924  |
| SwissProt                             | P09564   |
| Unigene                               | 186820   |
| Immunogen                             | Human T cells  |
| Antibody target cellular localization | Plasma membrane  |
| Species reactivity                    | Human  |
| Expected antibody applications        | ELISA (published for clone), Flow, surface (published for clone), Functional studies (published for clone), IF (published for clone), IP (published for clone)   |
| Antibody application notes            | Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 ug/mL, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user |
| Positive control                      | Jurkat, HUT-78, Molt-4, CEM cells, or human peripheral blood lymphocytes. Lymph node and tonsil.   |
| Shipping condition                    | Room temperature   |
| Storage Conditions                    | Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  |
| Shelf life                            | Guaranteed for at least 24 months from date of receipt when stored as recommended  |
| Regulatory status                     | For research use only (RUO)  |
| Antibody/conjugate formulation        | Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide  |
| Antibody research areas               | Immunology, Signal transduction  |
| Cell/tissue expression                | NK cells, T-cells  |
| Tumor expression                      | Leukemia/lymphoma  |

| Antibody # prefix | Conjugation        | Ex/Em (nm) | Laser line | Detection channel        | Dye Features                     |
|-------------------|--------------------|------------|------------|--------------------------|----------------------------------|
| BNC04             | CF®405S            | 404/431    | 405        | DAPI (microscopy), AF405 | <a href="#">CF®405S Features</a> |
| BNC88             | CF®488A            | 490/515    | 488        | GFP, FITC                | <a href="#">CF®488A Features</a> |
| BNC68             | CF®568             | 562/583    | 532, 561   | RFP, TRITC               | <a href="#">CF®568 Features</a>  |
| BNC94             | CF®594             | 593/614    | 561        | Texas Red®               | <a href="#">CF®594 Features</a>  |
| BNC40             | CF®640R            | 642/662    | 633-640    | Cy®5                     | <a href="#">CF®640R Features</a> |
| BNC47             | CF®647             | 650/665    | 633-640    | Cy®5                     | <a href="#">CF®647 Features</a>  |
| BNCB              | Biotin             | N/A        | N/A        | N/A                      |                                  |
| BNUB              | Purified           | N/A        | N/A        | N/A                      |                                  |
| BNUM              | Purified, BSA-free | N/A        | N/A        | N/A                      |                                  |

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