



**Attention: Use of this product constitutes an agreement to Bio X Cell's Terms and Conditions which are included with this product in print and can also be found at <https://bxcell.com/terms-and-conditions/>.**

**Lot Specific Information**

|                       |   |
|-----------------------|---|
| <b>Lot Number:</b>    | Lot Specific*                             |
| <b>Volume:</b>        | Lot Specific*                             |
| <b>Concentration:</b> | Lot Specific* (generally 4 to 11 mg/ml) * |
| <b>Total Protein:</b> | Lot Specific*                             |

\*This information will be noted on the certificate of analysis that ships with this product.

**Product Information**

|  |   |
|--|---|
| <b>Catalog Number:</b>                 | <b>BE0040</b>   |
| <b>Clone:</b>                          | <b>JJ319</b>  |
| <b>Isotype:</b>                        | Mouse IgG1, $\kappa$  |
| <b>Recommended Isotype Control(s):</b> | InVivoMAb mouse IgG1 isotype control, unknown specificity           |
| <b>Recommended Dilution Buffer:</b>    | InVivoPure pH 7.0 Dilution Buffer                                   |
| <b>Immunogen:</b>                      | Rat CD28-transfected BALB/c mouse A20J cell line                    |
| <b>Reported Applications:</b>          | <i>in vitro</i> T cell stimulation/activation<br>Flow cytometry     |
| <b>Formulation:</b>                    | PBS, pH 7.0<br>Contains no stabilizers or preservatives             |
| <b>Endotoxin:</b>                      | <2EU/mg (<0.002EU/ $\mu$ g)<br>Determined by LAL gel clotting assay |
| <b>Purity:</b>                         | >95%<br>Determined by SDS-PAGE                                      |
| <b>Sterility:</b>                      | 0.2 $\mu$ m filtered  |
| <b>Production:</b>                     | Purified from tissue culture supernatant in an animal free facility |
| <b>Purification:</b>                   | Protein G   |
| <b>RRID:</b>                           | AB_1107626  |
| <b>Molecular Weight:</b>               | 150 kDa   |

**Description**

The JJ319 monoclonal antibody reacts with rat CD28, a 45 kDa costimulatory receptor and a member of the Ig superfamily. CD28 is expressed by thymocytes, most peripheral T cells, and NK cells. CD28 is a receptor for CD80 (B7-1) and CD86 (B7-2). Signaling through CD28 augments IL-2 and IL-2 receptor expression as well as cytotoxicity of CD3-activated T cells.

**Shelf-life and Storage**

Store at the stock concentration at 4°C. **Do not freeze.**  
All Bio X Cell antibodies have a guaranteed shelf-life of one year from the date of customer receipt when stored as recommended. It is not uncommon for a floccule or precipitate to appear during storage. The floccule is typically buffer salts precipitating out of solution or a small bit of protein aggregation. For information on how to remove floccules or precipitates see our FAQ's at [bxcell.com/faqs](https://bxcell.com/faqs).

**Protocol Information**

Since applications vary, each investigator should use the application references as a guide to help estimate the appropriate dose or concentration. The dose or concentration can be further optimized experimentally in a dose response or titration experiment.

**Application References**

For a complete list of references, visit <https://bxcell.com/product/r-cd28/#references> or scan the QR code below.

**Bio X Cell, Inc.**

bxcell.com  
1.866.787.3444  
[customerservice@bxcell.com](mailto:customerservice@bxcell.com)

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