

## In Vivo Star Anti-Mouse CD274 (PD-L1) / CD279 (PD1) Bispecific Antibody

|                           |                                                          |
|---------------------------|----------------------------------------------------------|
| <b>Catalog Number:</b>    | 513501, 513502, 513503                                   |
| <b>Size:</b>              | 1 mg, 5 mg, 25 mg                                        |
| <b>Target Name:</b>       | PD-L1, PDL1 CD274, B7-H1, PD1, PD-1, PDCD1, CD279, SLEB2 |
| <b>Regulatory Status:</b> | RUO                                                      |

### PRODUCT DETAILS

---

|                             |                                                                                                                         |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>Clone:</b>               | 10F.9G2 / RMP1-14                                                                                                       |
| <b>Application:</b>         | Functional assay, animal model study                                                                                    |
| <b>Reactivity:</b>          | Mouse                                                                                                                   |
| <b>Format:</b>              | Liquid                                                                                                                  |
| <b>Product Description:</b> | In Vivo Grade Recombinant Anti-mouse PD-L1 / PD-1 Bispecific Antibody                                                   |
| <b>Isotype:</b>             | Mouse IgG2c LALAPG Kappa                                                                                                |
| <b>Antibody Type:</b>       | Recombinant                                                                                                             |
| <b>Purity:</b>              | >95% by reducing SDS-PAGE                                                                                               |
| <b>Endotoxin:</b>           | < 1 EU per 1 mg of the protein by the LAL method.                                                                       |
| <b>Storage Conditions:</b>  | 4°C                                                                                                                     |
| <b>Grade:</b>               | In vivo                                                                                                                 |
| <b>Recommended Usage:</b>   | This product is suitable for in vivo animal use. Optimal amounts need to be determined empirically for each experiment. |
| <b>Hidden Synonyms:</b>     | InVivoMab, InVivoPlus, GoInVivo, In Vivo Gold                                                                           |

### BACKGROUND INFORMATION

---

CD279, also known as Programmed Cell Death Protein 1 (PD-1), is a crucial immune checkpoint receptor that regulates T cell activation and prevents autoimmunity. This transmembrane protein plays a pivotal role in maintaining immune homeostasis by delivering inhibitory signals that dampen excessive immune responses.

PD-1 is a type I transmembrane glycoprotein belonging to the immunoglobulin superfamily. It contains an extracellular immunoglobulin variable (IgV)-like domain, a transmembrane region, and an intracellular tail with two tyrosine-based signaling motifs: an immunoreceptor tyrosine-based inhibitory motif (ITIM) and an immunoreceptor tyrosine-based switch motif (ITSM). When engaged, these motifs recruit phosphatases that inhibit T-cell receptor signaling, effectively suppressing T-cell activation, proliferation, and cytokine production.

PD-1 interacts with two primary ligands: PD-L1 (B7-H1/CD274) and PD-L2 (B7-DC/CD273). PD-L1 is widely expressed on various cell types, including tumor cells, antigen-presenting cells, and non-hematopoietic tissues, while PD-L2 expression is more restricted to antigen-presenting cells. These ligand-receptor interactions serve as critical brakes on immune responses. In cancer, tumor cells

exploit the PD-1/PD-L1 pathway to evade immune surveillance. By upregulating PD-L1 expression, tumors effectively "turn off" infiltrating T-cells, preventing effective anti-tumor immunity. This mechanism contributes to tumor progression and immune escape across multiple cancer types.

The discovery of PD-1's role in cancer has revolutionized oncology through immune checkpoint inhibitors. Monoclonal antibodies targeting PD-1 (pembrolizumab, nivolumab) or PD-L1 (atezolizumab, durvalumab) block this inhibitory pathway, reinvigorating anti-tumor T-cell responses. These therapies have demonstrated remarkable success in treating melanoma, non-small cell lung cancer, renal cell carcinoma, and numerous other malignancies, fundamentally transforming cancer treatment paradigms and offering durable responses in previously untreatable cancers.

This product is supplied subject to the terms and conditions at [www.innocyto.com/web/terms.php](http://www.innocyto.com/web/terms.php) and may only be used as provided in the stated terms. Products are for Research Use Only.