

## PD-1 mAb (RMP1-14), InVivoPure

Endotoxin level  $\leq 2$  EU/mg

### Description:

PD-1 is expressed on the surface of activated T cells, B cells and myeloid cells. PD-1 has two natural ligands, PD-L1 and PD-L2. Engagement of PD-1 with either ligand suppresses immune responses and promotes self-tolerance. PD-L1 and PD-L2 only share 37% sequence identity, but have similar functions and expression profiles. Where PD-L1 is expressed in immune cells such as T and B cells, DCs, and macrophages, as well as in many different tumor types. PD-L2 expression has been reported to be more restricted to APCs. The overexpression of PD-L1 and/or PD-L2 in cancer cells reduces the body's immune responses, enabling cancer cells to evade killing mediated by T cells. PD-L1 is expressed more widely by tumor cells than PD-L2, and the blockade of the PD-1/PD-L1 interaction is more frequently targeted by therapeutic agents [1].

RMP1-14 is a monoclonal antibody that targets the murine PD-1 protein [2], and has been used extensively to probe the effects of PD-1 inhibition in preclinical murine models [3].

This antibody is produced exclusively under serum-free conditions from hybridoma and purified with Protein-A or Protein-G affinity chromatography.

|                                     |   |
|-------------------------------------|---|
| <b>Product-ID:</b>                  | <b>AK3615P</b>  |
| <b>Clone:</b>                       | RMP1-14   |
| <b>Immunogen:</b>                   | Mouse PD-1 transfected BHK cells  |
| <b>Host:</b>                        | Rat   |
| <b>Clonality:</b>                   | Monoclonal  |
| <b>Isotype:</b>                     | Rat IgG2a $\kappa$  |
| <b>Formulation:</b>                 | Clear Liquid, PBS, pH 7.4, 0.2 $\mu$ m sterile filtered                           |
| <b>Concentration:</b>               | $\geq 1.00$ mg/mL   |
| <b>Purity:</b>                      | $\geq 90$ % (CGE, reducing conditions)<br>$\leq 10$ % aggregates (analytical SEC) |
| <b>Endotoxin:</b>                   | $\leq 2$ EU/mg (LAL test)   |
| <b>Storage:</b>                     | 2 - 8 °C  |
| <b>Recommended Isotype Control:</b> | Rat IgG2a Isotype Control (AK3617P)   |

**The product is for research use only and not for use in diagnostic or therapeutic procedures.**

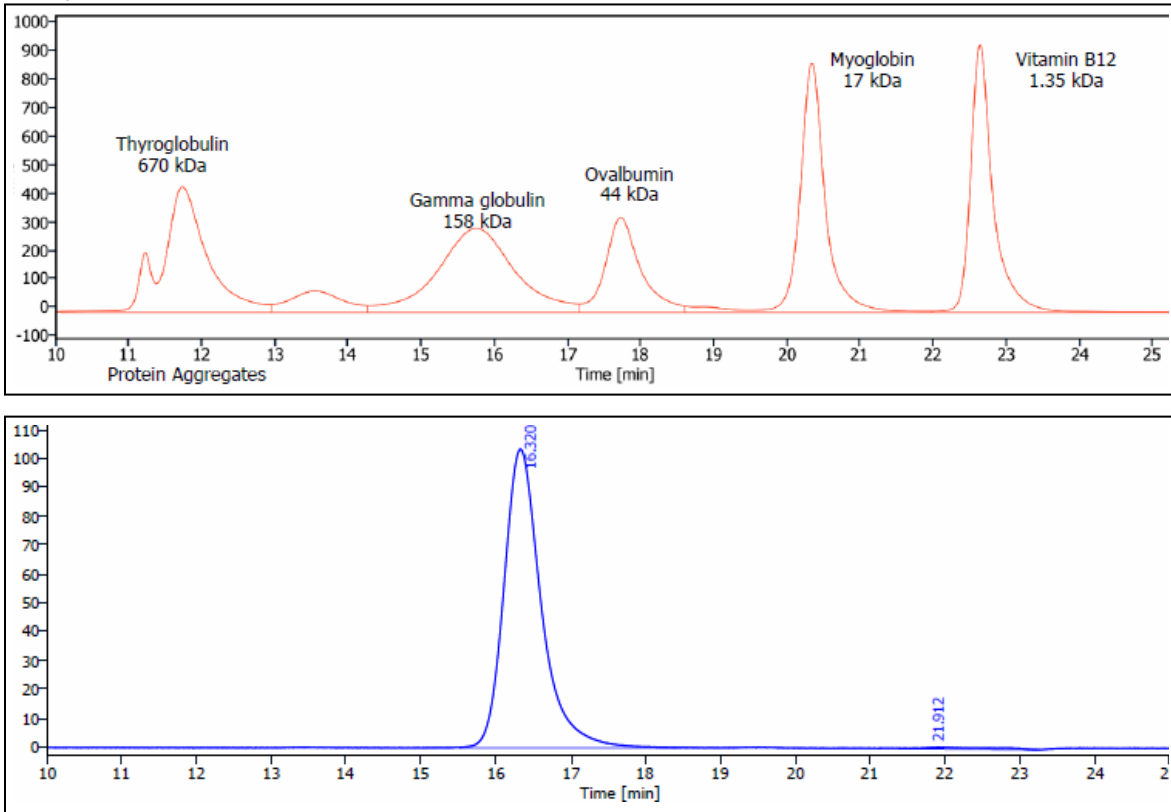
InVivo BioTech Services GmbH is certified to [ISO 9001](#) and [ISO 13485](#).

### Literature:

- [1] Timilsina HP, Arya SP, Tan X. Biotechnological Advances Utilizing Aptamers and Peptides Refining PD-L1 Targeting. *Front Biosci (Elite Ed)*. 2024 Sep 19;16(3):28. doi: 10.31083/j.fbe1603028. PMID: 39344385.
- [2] Seo SK, Jeong HY, Park SG, Lee SW, Choi IW, Chen L, Choi I. Blockade of endogenous B7-H1 suppresses antibacterial protection after primary *Listeria monocytogenes* infection. *Immunology*. 2008 Jan;123(1):90-9. doi: 10.1111/j.1365-2567.2007.02708.x. Epub 2007 Oct 25. PMID: 17971153; PMCID: PMC2433284.
- [3] Agrawal K, Hill RC, Wilkinson BL, Allison PB, Thomas CE. Quantification of the anti-murine PD-1 monoclonal antibody RMP1-14 in BALB/c mouse plasma by liquid chromatography-tandem mass spectrometry and application to a pharmacokinetic study. *Anal Bioanal Chem*. 2020 Jan;412(3):739-752. doi: 10.1007/s00216-019-02292-1. Epub 2019 Dec 12. PMID: 31832706.

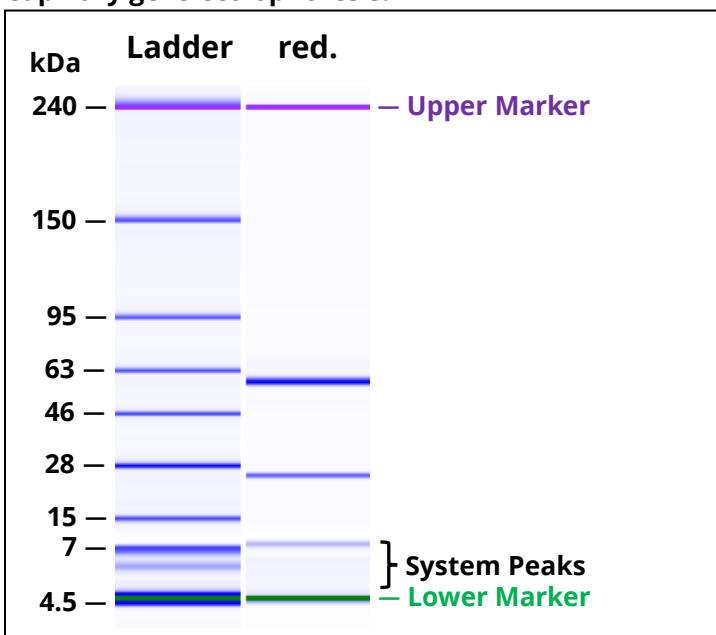
**PD-1 mAb (RMP1-14), InVivoPure  
 — Supplementary Data**

**Analytical SEC:**



Analytical SEC of purified protein (blue) in comparison with gel filtration standard (red).

**Capillary gel electrophoresis:**



CGE of the purified protein under reducing (red.) conditions.