

## IVMB0545

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### Product Information

<b>Product SKU:</b> IVMB0545	<b>Clone:</b> SHR-1210	<b>Target:</b> PD-1
<b>Size:</b> 500 µg		<b>Isotype:</b> Human IgG4k

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### Additional Information

<b>Reactivity:</b> Human	<b>Host Species:</b> Human
<b>Antibody Type:</b> Biosimilar Recombinant Human Monoclonal Antibody	<b>Expression Host:</b> HEK-293 Cells

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### Immunogen Information

**Background:** Programmed cell death 1 (PD-1) is a transmembrane protein in the Ig superfamily <sup>1,2</sup> that acts as an immune checkpoint receptor <sup>3</sup>, a T cell inhibitory receptor, plays critical roles in peripheral tolerance induction, autoimmune disease prevention, macrophage phagocytosis, tumor cell glycolysis, and dendritic cell survival <sup>2</sup>. PD-1 prevents uncontrolled T cell activity, leading to attenuation of T cell proliferation, cytokine production, and cytolytic activities. Additionally, the PD-1 pathway is a major mechanism of tumor immune evasion, and, as such, PD-1 is a target of cancer immunotherapy <sup>2</sup>. Programmed cell death 1 ligand 1 (PD-L1; CD274; B7H1) and programmed cell death 1 ligand 2 (PD-L2; CD273; B7DC) are ligands <sup>1</sup>.

Camrelizumab is a humanized high-affinity monoclonal antibody developed by Jiangsu Hengrui Medicine Co. Ltd as a cancer immunotherapeutic <sup>4</sup> that is derived from murine hybridoma Mab005 <sup>5</sup>. Camrelizumab binds to and blocks PD-1 binding to PD-L1 and PD-L2, preventing activation of downstream signalling pathways and restoring immune function <sup>4</sup>. Camrelizumab also has off-target binding to the vascular receptor VEGFR2 (KDR), frizzled class receptor 5 (FZD5), and UL16 binding protein 2 (ULBP2) due to activity in the complementarity-determining regions of the v-domains from its Mab005 parent <sup>5</sup>.

**Endotoxin Level:** < 1.0 EU/mg as determined by the LAL method

**Applications:** ELISA

<b>Synonyms:</b>	Anti-PD-1, PDCD1, CD279
<b>Antigen Distribution:</b>	PD-1 is expressed on activated T cells, B cells, a subset of thymocytes, macrophages, dendritic cells, and some tumor cells and is also retained in the intracellular compartments of regulatory T cells (Tregs).
<b>Immunogen:</b>	Human PD-1
<b>Formulation:</b>	This biosimilar antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.
<b>Specificity:</b>	Camrelizumab activity is directed against human PD-1 (CD274).
<b>Recommended Isotype</b>	Human IgG4
<b>Controls:</b>	
<b>Storage &amp; Handling:</b>	Functional grade biosimilar antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at -80°C. Avoid Repeated Freeze Thaw Cycles.