**PRODUCT INFORMATION**

**Contents:**
- Anti-mPD-1-mlgG1e3 InvivoFit™, purified monoclonal antibody (mAb), provided azide-free and lyophilized. It is available in two pack sizes:
  - 1 mg
  - 10 mg
  - 50 mg (5 x 10 mg)

**Target:** Murine programmed cell death 1 (mPD-1)

**Clone:** RMP1-14-derived

**Source:** Chinese hamster ovary (CHO) cells

**Sequence:** ~65% murine (constant region) and ~35% rat (variable region)

**Isotype:** Murine IgG1e3 (D265A mutation; no effector function)

**Light chain type:** Kappa

**Purification:** Affinity chromatography with protein A

**Formulation:** 0.2 μm filtered solution in 150 mM sodium chloride, 20 mM sodium phosphate buffer with 5% saccharose

**Administration:** Suitable for parenteral delivery in mice

**Tested applications:** Flow cytometry and ELISA

**Antibody resuspension (2 mg/ml)**
- Add 500 μl to 1 mg
- Add 5 ml to 10 mg

**Storage and stability**
- Product is shipped at room temperature. Store lyophilized antibody at -20 °C. Avoid repeated freeze-thaw cycles.
- Reconstituted antibody is stable for 1 month at 4 °C and for 1 year at -20 °C. Lyophilized product is stable for at least 1 year.
- Reconstituted antibody is stable for 1 month at 4 °C and for 1 year at -20 °C. Avoid repeated freeze-thaw cycles.

**Quality control**
- Binding of Anti-mPD-1-mlgG1e3 InvivoFit™ to mPD-1 has been confirmed using flow cytometry.
- The complete sequence of this antibody has been verified.
- <5% aggregates (confirmed by size exclusion chromatography).
- Anti-mPD-1-mlgG1e3 InvivoFit™ is filter-sterilized (0.2 μm) and its endotoxin level is <1 EU/mg (determined by the LAL assay).

**BACKGROUND**

Programmed cell death 1 (PD-1; also known as CD279) is a type I transmembrane protein expressed at the cell surface of activated and exhausted conventional T cells. PD-1 is an inhibitory immune checkpoint that prevents T-cell overstimulation and host damage. PD-1 interaction with its ligands PD-L1 (programmed cell death ligand 1) or PD-L2 induces inhibition of T-cell receptor signaling. Blockade of PD-1 with mAbs has allowed unprecedented remissions in patients with metastatic melanoma or non-small cell lung cancer.

**DESCRIPTION**

Anti-mPD-1-mlgG1e3 InvivoFit™ is a recombinant mAb designed for in vivo studies in mice. It features the variable region of the previously described anti-mPD-1 RMP1-14 mAb and the engineered murine IgG1e3 constant region. The RMP1-14 mAb targets and blocks mPD-1 antigen. However, the RMP1-14 mAb, along with other commercially available anti-mPD-1 mAbs, were generated in rats, and are therefore immunogenic in mice. Additionally, these mAbs feature the IgG2a isotype which promotes antibody-dependent cellular cytotoxicity. To overcome these two issues, InvivoGen offers a mouse anti-mouse mAb (non-immunogenic) featuring an isotype devoid of effector function. Anti-mPD-1-mlgG1e3 InvivoFit™ was generated by recombinant DNA technology so that it is ~65% murine (constant region) and with a point mutation D265A (a replacement of aspartic acid by alanine at position 265), resulting in the complete loss of cytolytic effector function. Anti-mPD-1-mlgG1e3 InvivoFit™ is thus ideal for blocking the mPD-1 receptor without causing T cell depletion. This antibody is produced in CHO cells and purified by affinity chromatography with protein A.

**RELATED PRODUCTS**

<table>
<thead>
<tr>
<th>Product</th>
<th>Catalog Code</th>
</tr>
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<tbody>
<tr>
<td>Anti-hPD1-Pem-hIgG4 (S228P) (Pembrolizumab)</td>
<td>hpd1pe-mab14</td>
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<tr>
<td>Anti-hPD1-Ni-hIgG4 (S228P) (Nivolumab)</td>
<td>hpd1ni-mab14</td>
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<tr>
<td>Anti-mCTLA4-mIgG2a InvivoFit™</td>
<td>mctla4-mab10-1</td>
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<tr>
<td>Active effector function</td>
<td>pdl1-mab9-1</td>
</tr>
<tr>
<td>No effector function</td>
<td>raji-hpd1</td>
</tr>
</tbody>
</table>

Other antibody isotype families are available, such as Anti-hCD20 and Anti-HER2.

For more information visit https://www.invivogen.com/antibody-isotypes.