

# Anti-PD1 hIgG4 Antibody(Pembrolizumab)

## Product information

|                 |        |
|-----------------|--------|
| GM-52674AB-10   | 10 µg  |
| GM-52674AB-100  | 100 µg |
| GM-52674AB-1000 | 1 mg   |

## Antibody Information

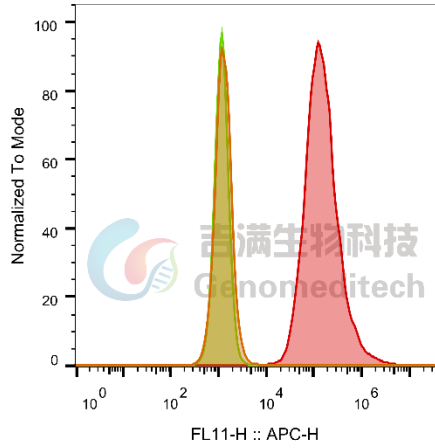
|                    |  |
|--------------------|--|
| Species Reactivity | Human; Cynomolgus  |
| Clone              | Pembrolizumab  |
| Source/Isotype     | Monoclonal Human IgG4 /k   |
| Application        | Flow Cytometry; ELISA; Block   |
| Specificity        | Detects PD1  |
| Gene               | PD1  |
| Other Names        | CD279, PD-1, PDCD1, SLEB2, hPD-1, hPD-I, hSLE1   |
| Gene ID            | 5133 (Human); 102123659 (Cynomolgus)   |
| Background         | <p>The programmed cell death 1 protein (PD-1, PDCD1, CD279) is a member of the CD28 family of immunoreceptors that regulate T cell activation and immune responses. The PD-1 protein contains an extracellular Ig V domain, a transmembrane domain, and a cytoplasmic tail that includes an immunoreceptor tyrosine-based inhibitory motif (ITIM) and an immunoreceptor tyrosine-based switch motif (ITSM). PD-1 is activated by the cell surface ligands PD-L1 and PD-L2. Upon activation, PD-1 ITIM and ITSM phosphorylation leads to the recruitment of the protein tyrosine phosphatases SHP-1 and SHP-2, which suppress TCR signaling. In addition to activated T-cells, PD-1 is expressed in activated B-cells and monocytes, although its function in these cell types has not been fully characterized. The PD-1 pathway plays an important role in immune tolerance; however, research studies show that cancer cells often adopt this pathway to escape immune surveillance. Consequently, blockade of PD-1 and its ligands is proving to be a sound strategy for neoplastic intervention.</p> |
| Storage            | Store at 2-8°C short term (1-2 weeks). Store at ≤ -20°C long term. Avoid repeated freeze-thaw.   |
| Formulation        | Phosphate-buffered solution, pH 7.2.   |
| Endotoxin          | < 1 EU/mg, determined by LAL gel clotting assay  |

Version:3.2

## Data Examples

Flow cytometry

H\_PD-1 Reporter CHO-K1 Cell Line was stained with Anti-PD1 hlgG4 Antibody(Pembrolizumab) (Catalog # GM-52674AB) or isotype control antibody, followed by anti-Human IgG APC-conjugated Secondary Antibody.

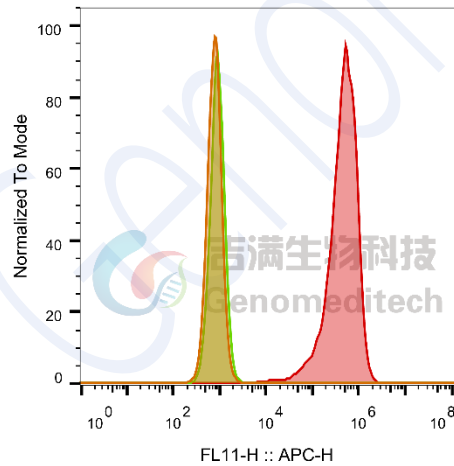


| SampleID                                   | Geometric Mean : FL11-H |
|--|-------------------------|
| CHO-K1 anti-PD1+APC-2nd Ab                 | 1296                    |
| H_PD-1 Reporter CHO-K1 H_IgG+APC-2nd Ab    | 1172                    |
| H_PD-1 Reporter CHO-K1 anti-PD1+APC-2nd Ab | 147946                  |

Fig 1. FACS

Flow cytometry

Cynomolgus\_PD1 CHO-K1 Cell Line (Catalog # GM-C19512) was stained with Anti-PD1 hlgG4 Antibody(Pembrolizumab) (Catalog # GM-52674AB) or isotype control antibody, followed by anti-Human IgG APC-conjugated Secondary Antibody.



| SampleID                            | Geometric Mean : FL11-H |
|-------------------------------------|-------------------------|
| CHO-K1 anti-PD1+APC-2nd Ab          | 791                     |
| CHO-K1 Cyno_PD1 H_IgG+APC-2nd Ab    | 914                     |
| CHO-K1 Cyno_PD1 anti-PD1+APC-2nd Ab | 4.18E5                  |

Fig 2. FACS

Bioactivity-Block

Anti-PD1 hIgG4 Antibody(Pembrolizumab) (Catalog # GM-52674AB) stimulated Luminescence of H\_PD-1 Reporter Jurkat Cell Line (Catalog # GM-C07928) binded with aAPC(OKT3) PDL1 CHO-K1 Cell Line (Catalog # GM-C05269). EC50 for this effect is 0.8411  $\mu\text{g/mL}$ .

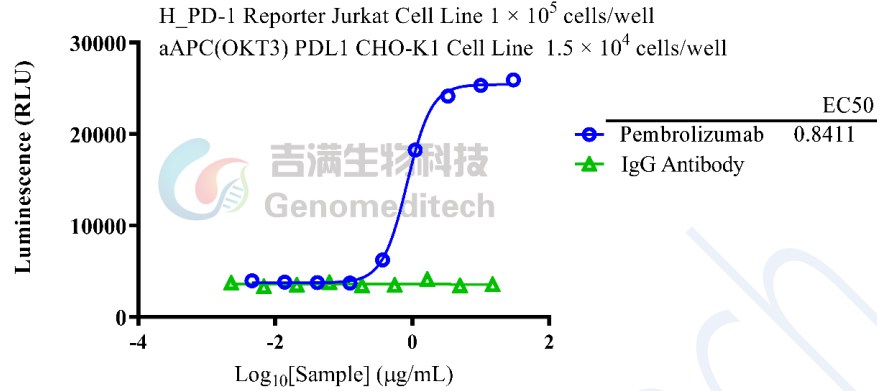


Fig 3. Assay

Bioactivity-ELISA

Biotinylated Human PD1 Protein; His-Avi Tag (Catalog # GM-87594RP) was immobilized at 1  $\mu\text{g/ml}$  (100  $\mu\text{L/well}$ ) on streptavidin precoated. Increasing concentrations of Anti-PD1 hIgG4 Antibody(Pembrolizumab) (Catalog # GM-52674AB) were added.

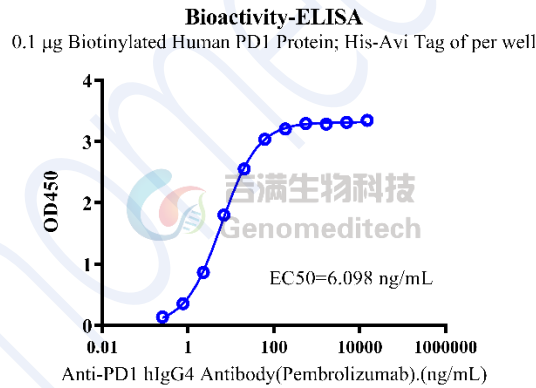


Fig 4. Assay

Bioactivity-ELISA

Human PD1 Protein; His Tag (Catalog # GM-87593RP) was immobilized at 1  $\mu\text{g/ml}$  (100  $\mu\text{L/well}$ ). Increasing concentrations of Anti-PD1 hlgG4 Antibody(Pembrolizumab) (Catalog # GM-52674AB) were added.

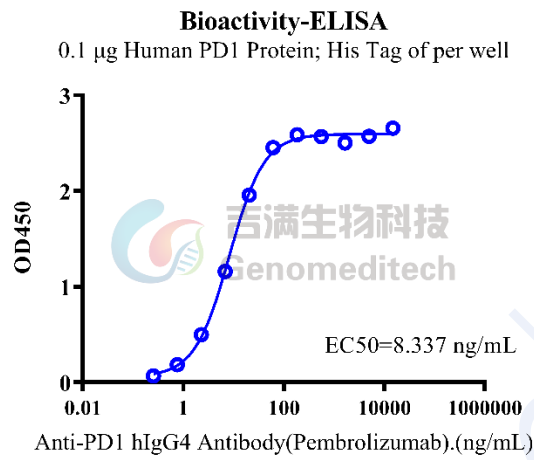


Fig 5. Assay