

# Anti-H\_CTLA-4 hIgG1 Antibody(Ipilimumab)

## Product information

GM-27203AB-10	10 µg
GM-27203AB-100	100 µg
GM-27203AB-1000	1 mg

## Antibody Information

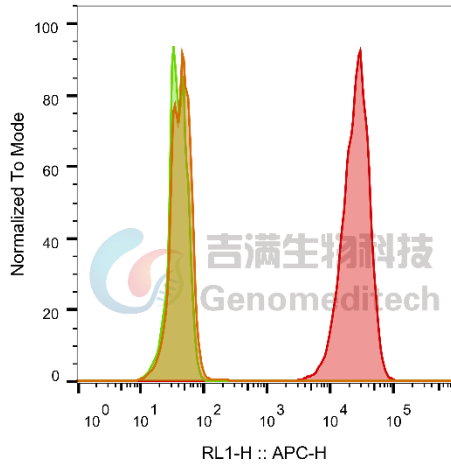
Species Reactivity	Human; Cynomolgus
Clone	Ipilimumab
Source/Isotype	Monoclonal Human IgG1 /κ
Application	Flow Cytometry; Bioassay
Specificity	Detects CTLA-4
Gene	CTLA-4
Other Names	ALPS5, CD, CD152, CELIAC3, CTLA4, GRD4, GSE, IDDM12
Gene ID	1493(human); G7PL88-1(Cynomolgus)
Background	<p>CTLA-4 or CTLA4 (cytotoxic T-lymphocyte-associated protein 4), also known as CD152 (cluster of differentiation 152), is a protein receptor that functions as an immune checkpoint and downregulates immune responses. CTLA-4 is constitutively expressed in regulatory T cells but only upregulated in conventional T cells after activation – a phenomenon which is particularly notable in cancers. It acts as an "off" switch when bound to CD80 or CD86 on the surface of antigen-presenting cells. CTLA-4 is a member of the immunoglobulin superfamily that is expressed by activated T cells and transmits an inhibitory signal to T cells. CTLA-4 is homologous to the T-cell co-stimulatory protein, CD28, and both molecules bind to CD80 and CD86, also called B7-1 and B7-2 respectively, on antigen-presenting cells. CTLA-4 binds CD80 and CD86 with greater affinity and avidity than CD28 thus enabling it to outcompete CD28 for its ligands. CTLA-4 transmits an inhibitory signal to T cells, whereas CD28 transmits a stimulatory signal. CTLA-4 is also found in regulatory T cells (Tregs) and contributes to their inhibitory function. T cell activation through the T cell receptor and CD28 leads to increased expression of CTLA-4.</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:3.3

## Data Examples

Flow cytometry

H\_CTLA4 CHO-K1 Cell Line (Catalog # GM-C23829) was stained with Anti-H\_CTLA-4 hlgG1 Antibody(Ipilimumab) (Catalog # GM-27203AB) or isotype control antibody, followed by anti-Human IgG APC-conjugated Secondary Antibody.

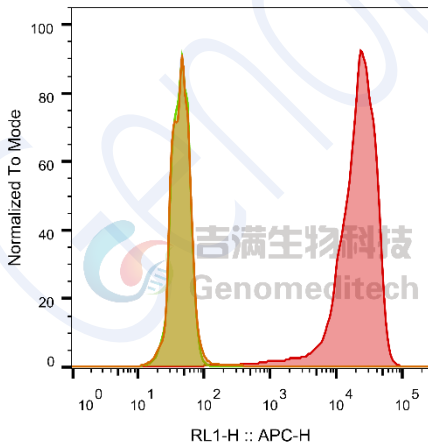


SampleID	Geometric Mean : RL1-H
CHO-K1 anti-CTLA4+APC-2nd Ab	44.7
CHO-K1 H_CTLA4 H_IgG+APC-2nd Ab	39.2
CHO-K1 H_CTLA4 anti-CTLA4+APC-2nd Ab	24041

Fig 1. FACS

Flow cytometry

Cynomolgus\_CTLA4 HEK-293 Cell Line (Catalog # GM-C25122) was stained with Anti-H\_CTLA-4 hlgG1 Antibody(Ipilimumab) (Catalog # GM-27203AB) or isotype control antibody, followed by anti-Human IgG APC-conjugated Secondary Antibody.



SampleID	Geometric Mean : RL1-H
HEK-293 anti-H_CTLA4+APC-2nd Ab	47.0
HEK-293 Cyno_CTLA4 H_IgG+APC-2nd Ab	44.6
HEK-293 Cyno_CTLA4 anti-H_CTLA4+APC-2nd Ab	18775

Fig 2. FACS

Bioassay

Anti-H\_CTLA-4 hIgG1 Antibody(Ipilimumab) (Catalog # GM-27203AB) stimulates H\_CTLA4 Reporter Jurkat Cell Line (Catalog # GM-C23902) Luminescence induced by Raji Cell Line (Catalog # GM-C19100) blended with OKT3. EC50 for this effect is 0.4153  $\mu\text{g/mL}$ .

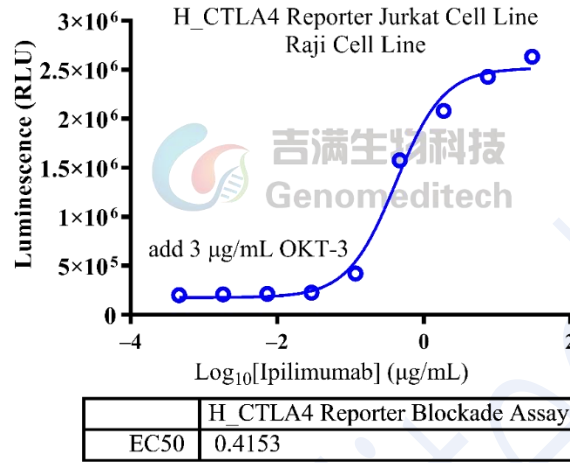


Fig 3. Assay

Bioactivity-ELISA

Cynomolgus CTLA4 Protein; His Tag (Catalog # GM-87555RP) was immobilized at 1  $\mu\text{g/ml}$  (100  $\mu\text{L/well}$ ). Increasing concentrations of Anti-H\_CTLA-4 hIgG1 Antibody(Ipilimumab) (Catalog # GM-27203AB) were added.

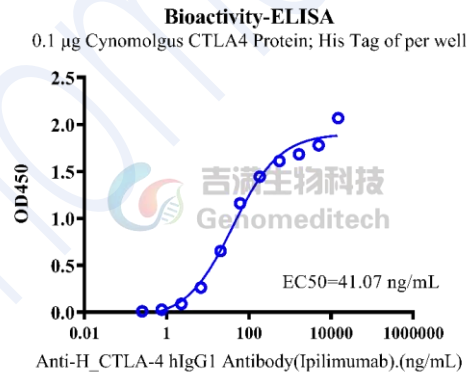


Fig 4. Assay

Bioactivity-ELISA

Biotinylated Cynomolgus CTLA4 Protein; His-Avi Tag (Catalog # GM-87556RP) was immobilized at 1  $\mu\text{g/ml}$  (100  $\mu\text{L/well}$ ) on streptavidin pre-coated. Increasing concentrations of Anti-H\_CTLA-4 hIgG1 Antibody(Ipilimumab) (Catalog # GM-27203AB) were added.

**Bioactivity-ELISA**  
0.1  $\mu\text{g}$  Biotinylated Cynomolgus CTLA4 Protein; His-Avi Tag of per well

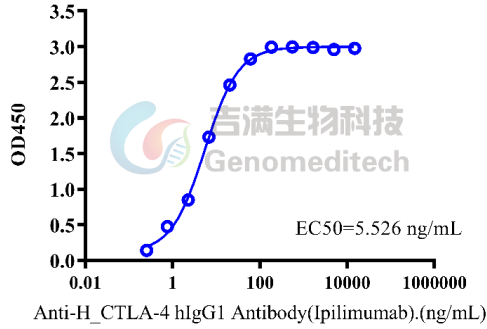


Fig 5. Assay