

Anti-H_CD28 hIgG4 Antibody(Theralizumab)

Product information

GM-27197AB-10	10 µg
GM-27197AB-100	100 µg
GM-27197AB-1000	1 mg

Antibody Information

Species Reactivity	Human; Cynomolgus
Clone	Theralizumab
Source/Isotype	Monoclonal Human IgG4 /κ
Application	Flow Cytometry; Activation assay
Specificity	Detects CD28
Gene	CD28
Other Names	Tp44
Gene ID	940
Background	<p>CD28 (Cluster of Differentiation 28) is one of the proteins expressed on T cells that provide co-stimulatory signals required for T cell activation and survival. T cell stimulation through CD28 in addition to the T-cell receptor (TCR) can provide a potent signal for the production of various interleukins (IL-6 in particular). CD28 is the receptor for CD80 (B7.1) and CD86 (B7.2) proteins. When activated by Toll-like receptor ligands, the CD80 expression is upregulated in antigen-presenting cells (APCs). The CD86 expression on antigen-presenting cells is constitutive (expression is independent of environmental factors). As a homodimer of two chains with Ig domains binds B7 molecules on APCs and it can promotes T cells proliferation and differentiation, stimulates production of growth factors and induces the expression of anti-apoptotic proteins. In general, CD28 is a primary costimulatory molecule for T cell activation. But effective co-stimulation is essential only for some T cell activation. In this case, in the absence of co-stimulatory signals, the interaction of dendritic and T cells leads to T cell anergy. The importance of the costimulatory pathway is underlined by the fact that antagonists of co-stimulatory molecules disrupt the immune responses both in vitro and in vivo.</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:3.1 Revision Date:12/29/2023

Data Examples

Flow cytometry

H_CD28 CHO-K1 Cell Line (Catalog # GM-C18999) was stained with Anti-H_CD28 hlgG4 Antibody(Theralizumab) (Catalog # GM-27197AB) or isotype control antibody, followed by anti-Human IgG APC-conjugated Secondary Antibody.

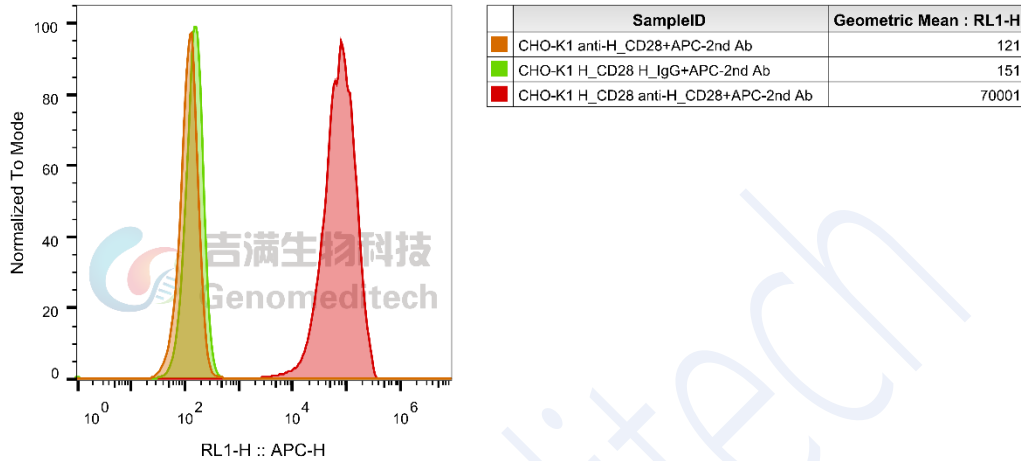


Fig 1. FACS

Flow cytometry

Cynomolgus_CD28 CHO-K1 Cell Line (Catalog # GM-C26542) was stained with Anti-H_CD28 hlgG4 Antibody(Theralizumab) (Catalog # GM-27197AB) or isotype control antibody, followed by anti-Human IgG APC-conjugated Secondary Antibody.

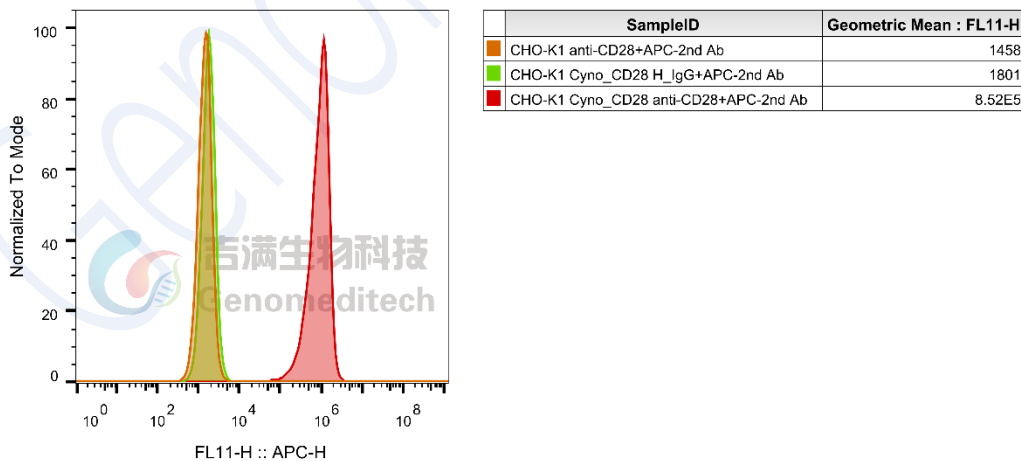


Fig 2. FACS

Activation assay

Anti-H_CD28 hlgG4 Antibody(Theralizumab) (Catalog # GM-27197AB)
 stimulates H_CD28 Reporter Jurkat Cell Line (Catalog # GM-C25147)
 Luminescence blended with OKT-3. EC50 for this effect is 6.326 $\mu\text{g/mL}$.

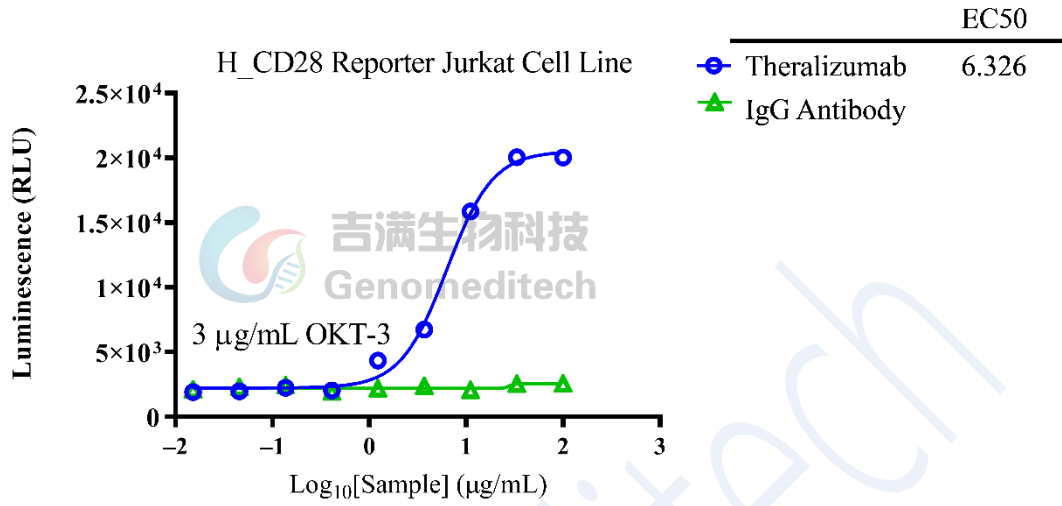


Fig 3. Assay