

Anti-IL1RAP hIgG1 Antibody (48D2_VH5.GL_VL4)

Product information

GM-88388AB-10	10 µg
GM-88388AB-100	100 µg
GM-88388AB-1000	1 mg

Antibody Information

Species Reactivity	Human
Clone	48D2_VH5.GL_VL4
Source/Isotype	Human IgG1(KEEM), Kappa
Application	Flow Cytometry; Assay
Specificity	Detects IL1RAP
Gene	IL1RAP
Other Names	C3orf13, IL-1RAcP, IL1R3
Gene ID	3556 (human)
Background	IL1RAP gene is a key member of the human immune and inflammatory regulatory network, and its encoded protein, as the "Core co-receptor" of the IL-1 receptor family, plays an important role in a variety of physiological and pathological processes. The gene is located on the long arm of human chromosome 3 and can produce 4 isoforms through alternative splicing, including 2 membrane-bound and 2 soluble types, and 2 membrane-bound variants, among them, membrane-bound proteins recognize IL-1 family cytokines through their triple immunoglobulin domains and activate the nf-kb and MAPK signaling pathways through the TIR domain, and the IL-1 family of cytokines has been implicated in the activation of nf-kb and MAPK signaling pathways, drives the expression of proinflammatory cytokines and chemokines. In the normal physiological state, IL1RAP is mainly low-expressed in the liver, neutrophil and trophoblast cells, and is involved in the moderate regulation of immune synapse formation and inflammatory response; however, it is also involved in the regulation of immune synapse formation and inflammatory response, in acute myeloid leukemia, pancreatic ductal adenocarcinoma, glioma and other malignant tumors, IL1RAP expression was significantly up-regulated, it has become a key driver of tumor progression and metastasis by promoting tumor cell proliferation, inhibiting apoptosis, enhancing immune escape and maintaining anoikis resistance. In addition, IL1RAP also interacts with receptor tyrosine kinases such as FLT3 and c-KIT to directly regulate the self-renewal of cancer stem cells, and its gene polymorphism is more Version:3.1

related to the risk of neurodegeneration diseases such as Alzheimer's disease. Because of its unique pro-inflammatory and pro-cancer effects, IL1RAP has become an emerging target for the treatment of cancer and autoimmune diseases. Antibody drugs and CAR-T therapies targeting this gene are entering clinical trials, it provides a new direction for improving resistance to traditional therapies and expanding indications.

Storage	Store at 2-8°C short term (1-2 weeks).Store at $\leq -20^{\circ}\text{C}$ long term. Avoid repeated freeze-thaw.
Formulation	Supplied as a 0.2 μm filtered solution of PBS, pH7.2-7.4.
Endotoxin	< 1 EU/mg, determined by LAL gel clotting assay

Data Examples

Flow Cytometry

H_IL1RAP CHO-K1 Cell Line (Catalog # GM-C41713) was stained with Anti-IL1RAP hIgG1 Antibody (48D2_VH5.GL_VL4) (Catalog # GM-88388AB) or isotype control antibody, followed by anti-Human IgG APC-conjugated Secondary Antibody.

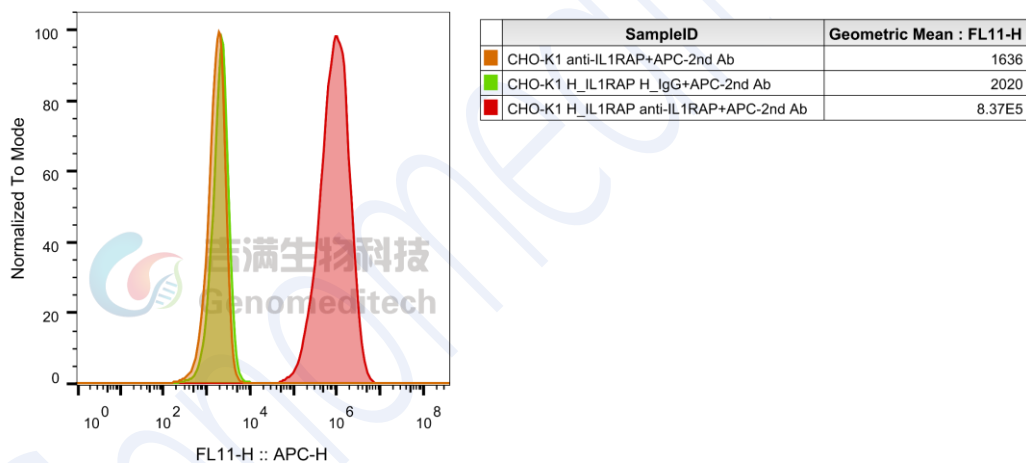


Fig. FACS

Block assay

Anti-IL1RAP hIgG1 Antibody (48D2_VH5.GL_VL4) (Catalog # GM-88388AB) inhibits H_IL33 Reporter 293 Cell Line (Catalog # GM-C45867) Luminescence induced by Human IL-33. IC50 for this effect is 0.01375 µg/mL.

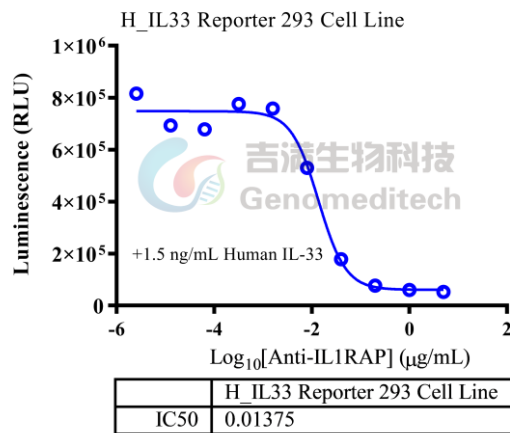


Fig. assay

Assay

Inhibition of Recombinant Human IL-36 alpha/IL-1F6 Protein-induced reporter activity by Anti-IL1RAP hIgG1 Antibody (48D2_VH5.GL_VL4). Serial dilutions of the Anti-IL1RAP hIgG1 Antibody (48D2_VH5.GL_VL4) (Cat. GM-88388AB) was incubated with 1.5E4 cells/well of the H_IL-36 Reporter 293 Cell Line (Cat. GM-C46318) in a 96-well plate for 1 hour in assay buffer (DMEM +1% FBS+1% P.S). Subsequently, the Human IL-36 alpha (Sinobiological/10607-HNCE1) at a concentration of 6 ng/well was added, and the coculture proceeded for an additional 6 hours. Firefly luciferase activity is then measured using the Luciferase Reporter Assay Kit (Genomeditech)(left Y-axis, relative luminescence units), with inhibition percentages shown on the right Y-axis.

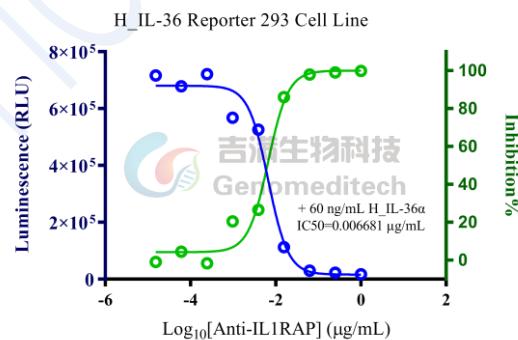


Fig. assay