abcam

ab270639

APC Anti-IL2 Receptor beta/p75 antibody [TU27]

Anti-IL2 Receptor beta/p75 antibody [TU27] conjugated to APC - suitable for flow cytometry, and reacts with human samples. Clone [TU27] is a mouse monoclonal antibody cited in 20 publications.

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Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	APC
Excitation/Emission	Ex: 650nm, Em: 660nm
Storage buffer	pH: 7.4 Preservative: 0.1% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing IL2RB protein. The exact immunogen used to generate this antibody is proprietary information. Database link P14784
Clone number	TU27
Purification technique	Size-exclusion chromatography
Light chain type	kappa

Reactivity data

Flow Cyt

Tested

Species	Human

Dilution info	10 µL for 10^6 Cells
Notes	-

Target data

See full target information IL2RB

Function	Receptor for interleukin-2. This beta subunit is involved in receptor mediated endocytosis and transduces the mitogenic signals of IL2. Probably in association with IL15RA, involved in the stimulation of neutrophil phagocytosis by IL15 (PubMed:15123770, PubMed:31040185).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Store in the dark

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The IL2 Receptor beta also known as IL-2R beta IL2R beta or CD122/IL2RB protein is a component of the interleukin-2 receptor complex. It is part of the receptor system for the cytokine IL-2. This receptor subunit has a molecular mass of approximately 75 kDa and gets alternatively referred to as IL2R beta or p75. It is expressed on the surface of activated T cells natural killer (NK) cells and in some cases myeloid lineage cells. This expression pattern correlates IL2R beta's role in essential immune functions and signaling processes.
Biological function summary	IL2R beta plays a critical role in cytokine binding and signal transduction for the interleukin-2 receptor which is a heterodimeric complex. This complex consists of the IL-2 receptor alpha (CD25) IL-2 receptor beta and a common gamma chain (γc CD132). The presence of IL-2R beta allows the receptor to mediate biological processes like cell proliferation differentiation and survival particularly within the immune system. The extent to how IL2R beta integrates into these processes makes it an important player in immune regulation and homeostasis.

Pathways	IL2R beta serves essential functions in the JAK-STAT and PI3K-AKT pathways. The binding of IL-2 to its receptor initiates a cascade of intracellular events which involve Janus kinases (JAKs) and signal transducer and activator of transcription (STATs) leading to transcriptional activation of various genes. Along with these pathways IL2R beta also interacts collaboratively with the gamma chain (γc) in promoting Downstream signaling events which enhance cell proliferation and survival.
Associated diseases and disorders	IL2R beta's function has implications in autoimmune diseases and certain types of leukemia. Alterations or dysregulation in IL-2R signaling pathways often play a role in autoimmune conditions due to its importance in maintaining immune tolerance. Moreover given IL-2 receptor's role in T-cell and NK-cell activity aberrations may contribute to uncontrolled cellular proliferation seen in leukemia. Understanding its interplay with the common gamma chain (CD132) can provide insights into therapeutic interventions targeting these disorders.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

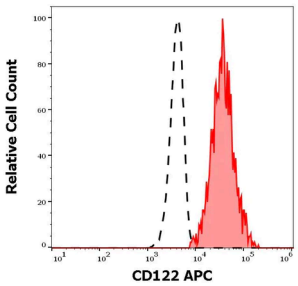
We do not recommend this combination. It is not covered by our product promise.

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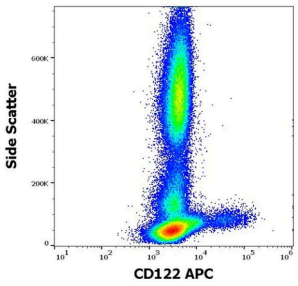
3 product images



Flow Cytometry - APC Anti-IL2 Receptor beta/p75 antibody [TU27] (ab270639)

IL2 Receptor beta/p75 Flow Cytometry staining using mouse Anti-IL2 Receptor beta/p75 antibody

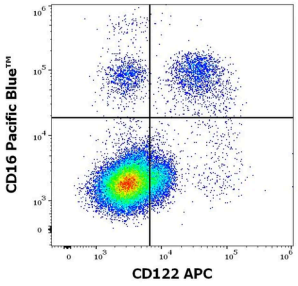
Flow cytometry analysis of IL2 Receptor beta/p75 positive (CD122) NK cells (red) and neutrophil granulocytes (black) cells labeling IL2 Receptor beta/p75 using ab270639. Concentration of 10 µl reagent/100µl peripheral whole blood. Surface staining.



Flow Cytometry - APC Anti-IL2 Receptor beta/p75 antibody [TU27] (ab270639)

IL2 Receptor beta/p75 Flow Cytometry staining using mouse Anti-IL2 Receptor beta/p75 antibody

Flow cytometric analysis of human peripheral whole blood cells labeling IL2 Receptor beta/p75 using ab270639. The concentration of 10 µl reagent/ 100µl of peripheral whole blood.



Flow Cytometry - APC Anti-IL2 Receptor beta/p75 antibody [TU27] (ab270639)

IL2 Receptor beta/p75 Flow Cytometry staining using mouse Anti-IL2 Receptor beta/p75 antibody

Flow cytometric analysis of human peripheral whole blood cells labeling IL2 Receptor beta/p75 using ab270639. The concentration of 10 µl reagent/ 100µl of peripheral whole blood.

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