

Human IL-2 R β Antibody

Monoclonal Antibody

Product Information

Product No.: I-636
Clone: 27302
RRID: AB_2830758
Isotype: Mouse IgG1
Storage: -20° to -70°C

Product Description

Specificity:

Clone 27302 recognizes an epitope on human IL-2 R β . This antibody does not cross-react with rhIL-2 R α , rhyc, rhIL-4 R or rhIL-6 R.

Antigen Distribution:

CD122 is expressed on NK cells and at lower levels by T lymphocytes, B lymphocytes, monocytes, and macrophages.

Background:

CD122 is a 70-75 kD IL-2 receptor β chain that is a type I membrane protein. CD122 is involved in T cell-mediated immune responses and its activation increases proliferation of CD8+ effector T cells. It exists in three forms with varying degrees of binding affinity with IL-2. The low affinity form is a monomer of the α subunit and has no involvement in signal transduction. The intermediate affinity form is a γ/β heterodimer and the high affinity form is an $\alpha/\beta/\gamma$ heterotrimer. The intermediate and high affinity forms of the receptor are involved in receptor-mediated endocytosis and transduction of mitogenic signals from interleukin 2. This protein also interacts with the IL-15 receptor.

Known Reactivity Species:

Human

Format:

Purified No Carrier Protein

Immunogen:

Purified Recombinant Human IL-2 R β (Accession # NP_000869)

Formulation

This monoclonal antibody has been 0.2 μ m filtered and lyophilized from modified Dulbecco's phosphate buffered saline (1X PBS) pH 7.2 - 7.3 containing 5.0% w/v trehalose with no calcium, magnesium or preservatives present.

Endotoxin

<0.1 EU/ μ g as determined by the LAL method

Storage and Stability

The lyophilized antibody can be stored desiccated at -20°C to -70°C for up to twelve months. The reconstituted antibody can be stored for at least four weeks at 2-8°C. For long-term storage of the reconstituted antibody, aseptically aliquot into working volumes and store at -20°C to -70°C in a manual defrost freezer.

Avoid repeated freeze thaw cycles. No detectable loss of activity was observed after six months.

Applications

Applications and Recommended Usage (Quality Tested By Leinco):

Flow Cytometry: It is recommended to use the indirect method for signal enhancement when enumerating cells expressing IL-2 R β . A suggested method would be to stain cells expressing IL-2 R β with 0.25 μ l per 1 - 2.5 x 10⁶ cells in a total staining volume of \leq 200 μ l followed by PN:M1189.

Other Applications Reported in Literature:

IHC (NBF/Par.): This antibody should give satisfactory staining results when used at a concentration of 2 - 15 μ g/ml. The recommended secondary antibody for IHC is PN:M114. For chromogenic detection with high signal and low background use PN:D100 or PN:K107.

Neutralization: This antibody is useful for neutralization of Human IL-2 R β bioactivity. The antibody dose required to neutralize 50% (ND50) of the biological activity of Human IL-2 R β (at 30 ng/ml) is 0.05-0.15 μ g/ml.

CyTOF-ready: Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.

Country of Origin

USA

References

- 1) Leonard, WJ. et al. (1987) Science 238: 75