



# Anti-CSF2RB2 monoclonal antibody, clone 240820 (DCABY-4246)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

**Antigen Description** Interleukin 3 (IL-3) is a pleiotropic cytokine that can stimulate proliferation and differentiation of pluripotent hematopoietic stem cells as well as various lineage committed progenitors. IL-3 exerts its activity through binding to a specific cell surface receptor known as IL-3 R. IL-3 R is a heterodimeric structure composed of a 70 kDa IL-3 R alpha subunit (CD123 or beta common) and a 120-140 kDa IL-3 R beta subunit (CD131). CD131 also associates with the receptor for Erythropoietin, forming a tissue-protective hetero-receptor complex. IL-3 R alpha binds IL-3 with relatively low affinity. In the presence of IL-3 R beta, however, IL-3 R alpha has a much higher affinity for IL-3. It is not clear how signal transduction occurs following IL-3 binding. The IL-3 R alpha chain has a very short intracellular domain while the IL-3 R beta chain has a very large cytoplasmic domain. Recent studies suggest that formation of IL-3 R beta-beta homodimers initiates signaling events. The IL-3 R beta chain is also shared by the receptors for IL-5 and GM-CSF. Cells known to express IL-3 receptors include hematopoietic progenitors, epithelial cells, double negative T cells, mast cells, basophils and blood monocytes.

**Specificity** Detects mouse IL-3R beta in ELISAs. In sandwich immunoassays, no cross-reactivity or interference with recombinant mouse IL-3R alpha or recombinant human IL-3 R alpha is observed. Cross-reactivity with AIC2B was not tested.

**Immunogen** Mouse myeloma cell line NS0-derived recombinant mouse IL-3 R beta . His23-Trp440  
Accession Number P26954

**Isotype** IgG2a

**Source/Host** Rat

**Species Reactivity** Mouse

**Clone** 240820

**Purification** Protein A or G purified from hybridoma culture supernatant

<b>Conjugate</b>	Unconjugated
<b>Applications</b>	ELISA Capture (Matched Pair)
<b>Format</b>	Lyophilized
<b>Size</b>	500 µg
<b>Buffer</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
<b>Preservative</b>	None
<b>Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">Csf2rb2 colony stimulating factor 2 receptor, beta 2, low-affinity (granulocyte-macrophage) [Mus musculus (house mouse)]</a>
<b>Official Symbol</b>	CSF2RB2
<b>Synonyms</b>	CSF2RB2; colony stimulating factor 2 receptor, beta 2, low-affinity (granulocyte-macrophage); Bll3; Il3r; AIC2A; Il3rb; Il3rb2; Betall3; Csfgmr; interleukin-3 receptor class 2 subunit beta; IL-3R class 2 subunit beta; IL-3 receptor class 2 subunit beta;
<b>Entrez Gene ID</b>	<a href="#">12984</a>
<b>Protein Refseq</b>	<a href="#">NP_001274318</a>
<b>UniProt ID</b>	<a href="#">Q3U1Z1</a>
<b>Chromosome Location</b>	15 E1; 15 37.22 cM
<b>Pathway</b>	Apoptosis; Cytokine Signaling in Immune system; Cytokine-cytokine receptor interaction; Immune System; Interleukin receptor SHC signaling; Interleukin-2 signaling; Interleukin-3, 5 and GM-CSF signaling; Jak-STAT signaling pathway.
<b>Function</b>	cytokine receptor activity;