

IL-2R γ (C-20): sc-667

BACKGROUND

The IL-2 receptor is a multicomponent complex consisting of three subunits, α , β and γ , each of which is required for high affinity binding of IL-2. The α chain functions primarily in binding IL-2, whereas the β and γ chains contribute to IL-2 binding and are essential to IL-2-induced activation of signaling pathways leading to T cell growth. Both IL-4R and IL-7R were initially described as single chain high affinity ligand binding cytokine receptors. However, it is now well established that the IL-2R γ chain functions as a second subunit of the high affinity IL-4R and IL-7R receptors. Consequently, the originally described subunits of these latter receptors are now referred to as IL-4R α and IL-7R α respectively, while the common subunit is referred to as γ c. Although the common γ chain enhances ligand binding in these three cytokine receptors, it has no capacity to bind these ligands on its own. There is evidence that the γ c chain is also a subunit of IL-13R.

CHROMOSOMAL LOCATION

Genetic locus: IL2RG (human) mapping to Xq13.1.

SOURCE

IL-2R γ (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of IL-2R γ of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-667 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-2R γ (C-20) is recommended for detection of IL-2R γ of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

IL-2R γ (C-20) is also recommended for detection of IL-2R γ in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for IL-2R γ siRNA (h): sc-35653, IL-2R γ shRNA Plasmid (h): sc-35653-SH and IL-2R γ shRNA (h) Lentiviral Particles: sc-35653-V.

Molecular Weight of IL-2R γ : 55-60 kDa.

Positive Controls: HuT 78 whole cell lysate: sc-2208 or Jurkat whole cell lysate: sc-2204.

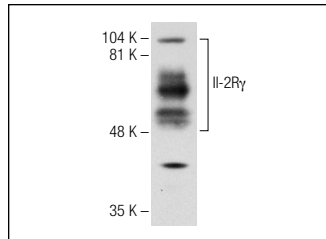
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

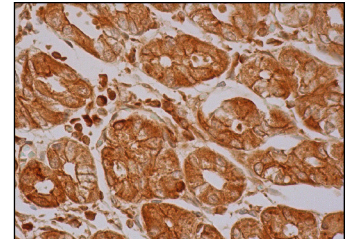
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



IL-2R γ (C-20): sc-667. Western blot analysis of IL-2R γ expression in HuT 78 whole cell lysate.



IL-2R γ (C-20): sc-667. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing membrane and cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

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- Garcia-Tunnon, I., et al. 2004. Interleukin-2 and its receptor complex (α , β and γ chains) in *in situ* and infiltrative human breast cancer: an immunohistochemical comparative study. Breast Cancer Res. 6: R1-R7.
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- White, S.R., et al. 2010. Expression of IL-4/IL-13 receptors in differentiating human airway epithelial cells. Am. J. Physiol. Lung Cell. Mol. Physiol. 299: L681-L693.
- Zenatti, P.P., et al. 2011. Oncogenic IL7R gain-of-function mutations in childhood T-cell acute lymphoblastic leukemia. Nat. Genet. 43: 932-939.
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MONOS
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