

IL-2R α (C-20): sc-664

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: IL2RA (human) mapping to 10p15.1; Il2ra (mouse) mapping to 2 A1.

SOURCE

IL-2R α (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of IL-2R α 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-664 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-2R α (C-20) is recommended for detection of IL-2R α of human and, to a lesser extent, mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IL-2R α siRNA (h): sc-29367, IL-2R α siRNA (m): sc-35657, IL-2R α shRNA Plasmid (h): sc-29367-SH, IL-2R α shRNA Plasmid (m): sc-35657-SH, IL-2R α shRNA (h) Lentiviral Particles: sc-29367-V and IL-2R α shRNA (m) Lentiviral Particles: sc-35657-V.

Molecular Weight of IL-2R α : 55 kDa.

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

RESEARCH USE

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

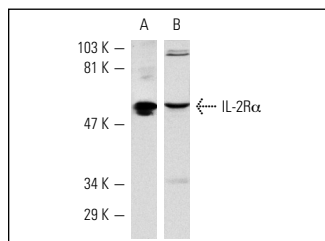
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

STORAGE

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

DATA



Western blot analysis of IL-2R α expression in HuT 78 (A) and WEHI-231 (B) whole cell lysates. Antibodies tested include IL-2R α (C-20): sc-664 (A) and IL-2R α (M-19): sc-666 (B).

SELECT PRODUCT CITATIONS

- Sharfe, N., et al. 1997. Human immune disorder arising from mutation of the α chain of the interleukin-2 receptor. Proc. Natl. Acad. Sci. USA 94: 3168-3171.
- Winkler, M.T., et al. 2002. Analysis of bovine trigeminal ganglia following infection with bovine herpesvirus 1. Vet. Microbiol. 86: 139-155.
- Ceclie, H., et al. 2003. Functional characterization of transcription factor binding sites for HNF-1 α , HNF-3 β (FOXA2), HNF-4 α , Sp1 and Sp3 in the human prothrombin gene enhancer. J. Thromb. Haemost. 1: 1688-1698.
- García-Tuñón, 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.
- de Wolf, C.J., et al. 2006. The constitutive expression of anticoagulant protein S is regulated through multiple binding sites for Sp1 and Sp3 transcription factors in the protein S gene promoter. J. Biol. Chem. 281: 17635-17643.
- Lewis, V.O., et al. 2009. The interleukin-11 receptor α as a candidate ligand-directed target in osteosarcoma: consistent data from cell lines, orthotopic models, and human tumor samples. Cancer Res. 69: 1995-1999.
- Fellman, C.L., et al. 2011. Cyclosporine A affects the *in vitro* expression of T cell activation-related molecules and cytokines in dogs. Vet. Immunol. Immunopathol. 140: 175-180.
- Gao, L. and Harhaj, E.W. 2013. HSP90 protects the human T-cell leukemia virus type 1 (HTLV-1) tax oncoprotein from proteasomal degradation to support NF κ B activation and HTLV-1 replication. J. Virol. 87: 13640-13654.

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