



soluble Interleukin-2 Receptor ELISA.

NEW

Your way to understand activated T-cell immunity

Get your data with an easy-to-use product focused on
T-cell immunity assessment.

About sIL-2R

The interleukin-2 receptor (IL-2R) is a monomeric, heterodimeric or -trimeric protein¹ expressed on the surface of certain immune cells like lymphocytes that binds and responds to a cytokine called IL-2².

Interleukin-2 (IL-2) is a body own signaling molecule mainly produced by activated T-cells. It acts on different types of B- and T-cells via the interleukin-2 receptor.

The functional interleukin-2 receptor consists either of two or three protein chains.

The dimeric IL-2R consists of the IL-2R β (CD122) chain and the IL-2R γ (CD132) that form an intermediate affinity receptor for IL-2. If the IL-2 α (CD25) chain is incorporated into the receptor complex the IL-2R attains high affinity for IL-2³.

In the figure below the different ways of IL-2-IL-2R signaling is depicted.

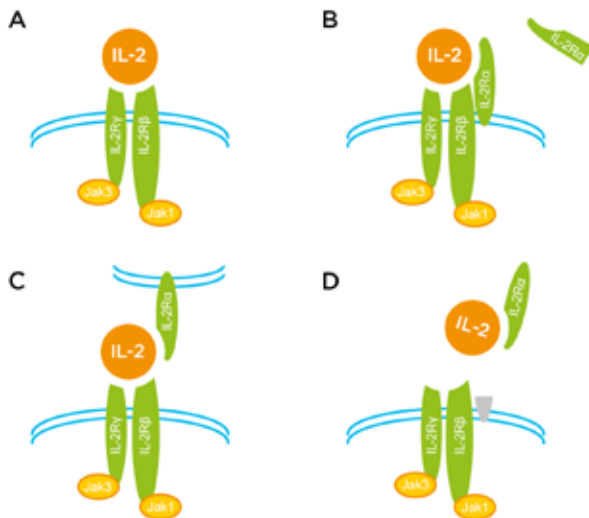


Fig. **Binding of IL-2 to distinct compositions of the IL-2 receptor.** For effective signaling, cells may either express the dimeric, intermediate-affinity IL-2R composed of the IL-2R β and IL-2R γ chain (A) or the trimeric, high-affinity IL-2R also including the IL-2R α chain (B). The IL-2R α chain can be cleaved off by proteases revealing soluble IL-2R (sIL-2R). Some cells only express the monomeric, low-affinity IL-2R α chain. These cells can present IL-2 in trans to cells expressing the dimeric, intermediate-affinity IL-2R (C). Also sIL-2R has low affinity for IL-2 and can function either as a decoy receptor reducing the bio-availability of IL-2, or by enabling in trans presentation to cells expressing the dimeric, intermediate-affinity IL-2R, with or without the membrane part of the cleaved IL-2R α chain (D)³.



Advantages:

- **Data Integrity: Calibrated against non-WHO standard NIBSC 97/600**
- **Easy to perform with ready-to-use reagents**
- **Quality ensured with 2 kit controls included**

PRODUCT

30220261

sInterleukin-2-Receptor ELISA - RUO**

Benefits:

- **Do your studies from small scale to high throughput**
- **Increase productivity and efficiency with automated workflow***
- **Adapted on Thunderbolt, DSX, Freedom EVOlyzer****

*The combined use of assays, process script and automate has to be validated individually on site by each laboratory.

Literature:

- 1. Arenas-Ramirez, N., Woytschak, J., & Boyman, O. (2015).** Interleukin-2: Biology, Design and Application. Trends in immunology, 36(12), 763-777.
- 2. Taniguchi, T., & Minami, Y. (1993).** The IL-2/IL-2 receptor system: a current overview. Cell, 73(1), 5-8.
- 3. Damoiseaux J. (2020).** The IL-2 - IL-2 receptor pathway in health and disease: The role of the soluble IL-2 receptor. Clinical immunology (Orlando, Fla.), 218, 108515.

** For research use only. Not for use in diagnostic procedures.

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All products are only available for sale to laboratory professionals and may not be available in all countries.

Manufactured by

IBL International GmbH
Flughafenstrasse 52a
22335 Hamburg
Germany

Phone: +49 (0)40-53 28 91-0
Fax: +49 (0)40-53 28 91-11
Email: IBL@Tecan.com
www.tecan.com/ibl

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Australia +61 3 9647 4100 **Austria** +43 62 46 89 330 **Belgium** +32 15 42 13 19 **China** +86 21 220 63 206 **France** +33 4 72 76 04 80 **Germany** +49 79 51 94 170 **Italy** +39 02 92 44 790 **Japan** +81 44 556 73 11 **Netherlands** +31 18 34 48 17 4 **Nordic** +46 8 750 39 40 **Singapore** +65 644 41 886 **Spain** +34 93 93 595 25 31 **Switzerland** +41 44 922 89 22 **UK** +44 118 9300 300 **USA** +1 919 361 5200 **Other countries** +41 44 922 81 11
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