

TECHNICAL DATA SHEET

Recombinant Human sIL-2R α (sCD25) (Carrier-free)

Catalog Number: 21-9241

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human sIL-2R α (sCD25) (Carrier-free)

DESCRIPTION

The high-affinity IL-2 receptor is a trimeric complex made up of IL-2R alpha (CD25), IL-2R beta (CD122) and the common gamma chain (IL-2R gamma, CD132). The alpha chain is cleaved from the cell membrane through proteolytic processing to release soluble IL-2R alpha. IL-2R alpha binds IL-2 with low affinity and is not essential for IL-2 signaling, but when combined with the beta and gamma chains it greatly increases affinity for IL-2. IL-2R alpha is expressed during early T and B lymphocyte development and is also induced during mature T and B cell activation. It has been reported to enhance Th17 responses in vitro.

MOLECULAR MASS

Recombinant Human sIL-2R alpha is a 24.8 kDa protein, however due to glycosylation it is observed at about 31 kDa based on SDS-PAGE and Mass Spectrometry. It consists of 219 amino acid residues, based only on the extracellular domain of IL-2R alpha.

AMINO ACID SEQUENCE

ELCDDDPPEI PHATFKAMAY KEGTMLNCEC KRGFRRIKSG SLYMLCTGNS SHSSWDNQCC CTSSATRNTT KQVTPQPEEQ KERKTTEMQS
PMQPVDQASL PGHCREPPPW ENEATERIYH FVVGQMVYYQ CVQGYRALHR GPAESVCKMT HGKTRWTQPQ LICTGEMETS QFPGEEKPQA
SPEGRPESET SCLVTTTDFQ IQTEMAATME TSIFTTEYQ

SOURCE

CHO cells

APPLICATIONS

Bioassay

PURITY

≥98 %

STORAGE

-20°C

PROTEIN CONTENT

Verified by HPLC and/or SDS-PAGE gel.

ENDOTOXIN LEVEL

Endotoxin level is <0.1 ng/μg of protein (<1 EU/μg).

AUTHENTICITY

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

CROSS REACTIVITY

Mouse

BIOACTIVITY

The ability to increase the IL-2 proliferative effect on murine CTLL-2 cells is measured. The expected ED₅₀ for this effect, in the presence of 1 ng/ml recombinant IL-2, is between 0.5 - 1.5 μg/ml.

RESEARCH AREAS

AIDS/HIV, Immune System, Inflammation, Neurobiology, Receptors, Transplantation

RECONSTITUTION

See Certificate of Analysis (COA) for lot specific reconstitution information.

REFERENCES

Nelson BH and Willerford DM. 1998. Adv Immunol. 70: 1-81. Willerford DM, Chen J, Ferry JA, Davidson L, Ma A and Alt FW. 1995. 3(4): 521-530. Rubin LA, Galli F, Green WC, Nelson DL and Jay G. 1990. Cytokine. 2(5): 330-336. Russell SE, Moore AC, Fallon PG and Walsh PT. 2012. PLoS One. DOI: 10.1371/journal.pone.0047748.

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