

TECHNICAL DATA SHEET

Recombinant Human sTNF Receptor Type II (Carrier-free)

Catalog Number: 21-7084

RPx-Pro™ Recombinant Protein
PRODUCT INFORMATION

CONTENTS

Recombinant Human sTNF Receptor Type II (Carrier-free)

DESCRIPTION

TNF receptor II (TNFRII or TNFRSF1B), along with the structurally related TNFRI, belong to the TNF receptor superfamily of proteins. TNFRII has a more restricted expression pattern than TNFRI, limited mainly to hematopoietic and immune system cells, whereas TNFRI is thought to be present on all cell types. TNFRII is a high-affinity receptor for TNF-alpha and also binds TNF-beta, but at a lower affinity. Binding to membrane-bound TNF results in effective activation, but while soluble TNF binds to TNFRII, it does not activate its signaling pathway. Signaling through this receptor regulates various biological processes, including cell proliferation, differentiation, apoptosis, lipid metabolism, coagulation, and neurotransmission. The soluble form of TNFRII is capable of inhibiting TNF-alpha-induced activities by acting as a decoy receptor, thereby reducing the inflammatory response.

MOLECULAR MASS

Recombinant human sTNF Receptor Type II is an 18.9 kDa protein (174 amino acid residues) comprising the cysteine-rich, ligand binding portion of the extracellular domain of the TNFRII protein.

AMINO ACID SEQUENCE

MAPEPGSTCR LREYYDQTAQ MCCSKCSPGQ HAKVFCTKTS DTVCDSCEDES TYTQLWNWVP ECLSCGSRCS SDQVETQACT
REQNRICTCR PGWYCALSKQ EGCRLCAPLR KCRPGFGVAR PGTETSDVVC KPCAPGTFSN TTSSTDICRP HQICNVVAIP
GNASMDAVCT STSP

SOURCE

E. coli

APPLICATIONS

Bioassay

PURITY

98 %

STORAGE

-20°C

PROTEIN CONTENT

Content Verified by UV Spectroscopy and/or SDS-PAGE

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

Determined by its inhibitory effect of the TNF-alpha mediated cytotoxicity in murine L-929 cells. The ED₅₀ for this effect in the presence of 0.25 ng/ml of recombinant human TNF-alpha is 0.125 μg/ml.

RESEARCH AREAS

Inflammation; Neurobiology; Receptors; TNF Superfamily

RECONSTITUTION

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

REFERENCES

Nophar Y, Kemper O, Brakebusch C, Englemann H, Zwang R, Aderka D, Holtmann H and Wallach D. 1990. EMBO J. 9(10): 3269-3278. Locksley RM, Killeen N and Lenardo MJ. 2001. Cell. 104(4): 487-501. Hehlgans T and Mannel DM. 2002. Biol Chem. 383(10): 1581-1585. Wallach D, Englemann H,

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