

TECHNICAL DATA SHEET

Recombinant Human TGF-beta 2 (Carrier-free)

Catalog Number: 21-8478

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human TGF-beta 2 (Carrier-free)

DESCRIPTION

Transforming Growth Factor beta 2 (TGF-beta 2) is a member of the TGF superfamily, and exists alongside 2 other mammalian isoforms of TGF-beta – TGF-beta 1 and TGF-beta 3 – which share a pair of receptors. All three isoforms are secreted by most cell types, and for regulatory control, must be activated before they exert functional activity. They are multifunctional cytokines that regulate cell proliferation, growth, differentiation and motility, as well as synthesis and deposition of the extracellular matrix. TGF-beta2 can induce differentiation, apoptosis, and angiogenesis.

MOLECULAR MASS

Recombinant human TGF-beta 2 is a 25.0 kDa protein composed of two identical 112 amino acid polypeptide chains linked by a single disulfide bond.

AMINO ACID SEQUENCE

ALDAAYCFRN VQDNCCLRPL YIDFKRDLGW KWIHEPKGYN ANFCAGACPY LWSSDTQHSR VLSLYNTINP EASASPCCVS
 QDLEPLTILY YIGKTPKIEQ LSNMIVKSCK CS

SOURCE

HEK293 cells

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, Rat

BIOACTIVITY

Determined by its ability to inhibit the mouse IL-4-dependent proliferation of mouse HT-2 cells. The ED₅₀ was found to be ≤ 0.2 ng/ml, corresponding to a specific activity of ≥ 5 x 10⁶ units/mg.

RESEARCH AREAS

Angiogenesis/Cardiovascular; Apoptosis; Cancer; Immune System; TGF-beta Superfamily; Wound Healing; Allergy; Inflammation: Proliferation: Stem Cells & Differentiation

RECONSTITUTION

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

REFERENCES

Lawrence DA. 1996. Eur Cytokine Netw. 7(3): 363-374. Clark DA and Coker R. 1998. Int J Biochem Cell Biol. 30(3): 293-298. Roberts AB and Sport MB. 1992. Mol Reprod Dev. 32(2): 91-98. Barcellos-Hoff MH. 1996. J Mammary Gland Biol Neoplasia. 1(4): 353-363. Robertson IB and Rifkin DB. 2013. Cytokine Growth Factor Rev. 24(4): 355-372.

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