

TECHNICAL DATA SHEET

Recombinant Human Activin B (Carrier-free)

Catalog Number: 21-7094

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human Activin B (Carrier-free)

DESCRIPTION

Activin B is a TGF-beta family member that exerts a wide array of biological activities including regulation of cell proliferation and differentiation, apoptosis and metabolism. Activins exist as homodimers or heterodimers of the four mammalian beta-subunit isoforms. Activin B is a homodimer of the beta-B subunit. Activin protein complexes are closely related to inhibins, which consist of one of the beta-subunits paired with a unique alpha-subunit. Activin B binds the ActRII receptor, which then associates with ActRI to initiate signaling. Activins and inhibins are expressed by various cell types and mediate opposing biological effects.

MOLECULAR MASS

Human Activin B is a homodimer consisting of two beta-B subunits, each containing 115 amino acid residues. It has a molecular weight of 25.6 kDa.

AMINO ACID SEQUENCE

GLECDGRTNL CCRQQFFIDF RLIQWWDWII APTGYYGNYC EGSCPAYLAG VPGSASSFHT AVVNQYRMRG LNPQTVNSCC
IPTKLSTMSM LYFDDEYNIV KRDVPMIVE ECGCA

SOURCE

(BTI-Tn-5B1-4) Hi-5 Insect cells

APPLICATIONS

Bioassay

PURITY

95 %

STORAGE

-20°C

PROTEIN CONTENT

Content Verified by UV Spectroscopy 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

BIOACTIVITY

A specific activity of $\geq 5 \times 10^5$ units/mg corresponds to an ED_{50} of ≤ 2.0 ng/ml. This was determined by its ability to inhibit the proliferation of murine MPC-11 cells.

RESEARCH AREAS

Apoptosis, Neurobiology, Stem Cells, Differentiation, TGF-beta Superfamily

RECONSTITUTION

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

REFERENCES

Ying SY, Zhang Z, Furst B, Batres Y, Huang G and Li G. 1997. Proc Soc Exp Biol Med. 214(2): 114-122. Chen YG, Wang Q, Lin SL, Chang CD, Chuang J, Ying SY. 2006. Exp Biol Med. 231(5): 534-44. Aleman-Muench GR, Soldevila G. Immunol Cell Biol. 2012. 90(2): 137-48. Thompson TB, Cook RW, Chapman SC, Jardetzky TS and Woodruff TK. 2004. Mol Cell Endocrinol. 225(1-2): 9-17.

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