

TECHNICAL DATA SHEET

Recombinant Human HB-EGF (Carrier-free)

Catalog Number: 21-7061

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human HB-EGF (Carrier-free)

DESCRIPTION

Human HB-EGF is a group 2 ErbB ligand and a member of the EGF family of peptide growth factors. It is able to activate both the EGF/ErbB1 and ErbB4 receptors, and EGFR binding induces both mitogenic and non-mitogenic activity. Cell types and tissues known to express this growth factor include vascular endothelial and smooth muscle cells, macrophages, skeletal muscle, keratinocytes, and certain tumor cells. HB-EGF is required for normal cardiac valve formation and heart function, and stimulates proliferation of various cell types including smooth muscle cells, fibroblasts, epithelial cells and keratinocytes. The human HB-EGF gene encodes a 208 amino acid transmembrane protein, which can be proteolytically cleaved to produce soluble HB-EGF.

MOLECULAR MASS

Recombinant human HB-EGF is a 9.7 kDa protein containing 86 amino acid residues, corresponding to the extra-cellular EGF-like and heparin binding domains of the full length HB-EGF protein.

AMINO ACID SEQUENCE

DLQEADLDLL RVTLSKPKQA LATPNKEEHG KRKKKGKGLG KKRDPCLRKY KDFCIHGECKYVKELRAPSC ICHPGYHGER CHGLSL

SOURCE

E. coli

APPLICATIONS

Bioassay

PURITY

95 %

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

BIOACTIVITY

The ED₅₀ was determined by a cell proliferation assay using balb/c 3T3 cells is ≤ 1.0 ng/ml, corresponding to a specific activity of ≥ 1 x 10⁶ units/mg.

RESEARCH AREAS

Angiogenesis/Cardiovascular; Apoptosis; Proliferation; Wound Healing

RECONSTITUTION

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

REFERENCES

Nanba D and Higashiyama S. 2004. Cytokine Growth Factor Rev. 15(1): 13-19. Higashiyama S, Abraham JA, Miller J, Fiddes JC and Klagsbrun M. 1991. Science. 251(4996): 936-939. Iwamoto R and Mekada E. 2000. Cytokine Growth Factor Rev. 11(4): 335-344. Park JM, Borer JG, Freeman MR and Peters CA. 1998. Am J Physiol. 275: C1247-1254.

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