TECHNICAL DATA SHEET

Recombinant Human IGF-II (Carrier-free)

Catalog Number: 21-7069

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human IGF-II (Carrier-free)

DESCRIPTION

IGF-II (insulin-like growth factor II) is a member of a family of proteins involved in mediating growth and development. IGF-II expression is regulated by lactogen, is expressed in many cell and tissue types, and may have autocrine, paracrine and endocrine functions. IGF-II binds with higher affinity to IGF-R II than IGF-R I. Mature IGFs are generated by proteolytic processing of inactive precursor proteins, which contain N-terminal and C-terminal propeptide regions. As with IGF-I, association with IGF binding proteins acts to extend the half-life of IGF-II and regulates receptor interaction.

MOLECULAR MASS

Recombinant human IGF-II is a globular protein containing 67 amino acids and 3 intra-molecular disulfide bonds, and has a predicted molecular mass of approximately 7.47 kD.

AMINO ACID SEQUENCE

AYRPSETLCG GELVDTLQFV CGDRGFYFSR PASRVSRRSR GIVEECCFRS CDLALLETYC ATPAKSE

SOURCE	APPLICATIONS	PURITY	STORAGE
E. coli	Bioassay	98 %	-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, Tiger Salamander

BIOACTIVITY

The ED_{50} was determined by a cell proliferation assay using FDC-P1 cells is ≤ 2.0 ng/ml, corresponding to a specific activity of ≥ 5×10^5 units/mg.

RESEARCH AREAS

Angiogenesis/Cardiovascular; Bone, Skeletal, Cartilage; Diabetes / Weight Regulation; Wound Healing; Inflammation; Proliferation

RECONSTITUTION

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

REFERENCES

Denley A, Cosgrove LJ, Booker GW, Wallace JC and Forbes BE. 2005. Cytokine Growth Factor Rev. 16(4-5): 421-439. Mohan S and Baylink DJ. 2002. J Endocrinol. 175(1): 19-31. Perdue JF. 1984. Can J Biochem Cell Biol. 62(11): 1237-1245. Nissley SP and Rechler MM. 1984. 13(1): 43-67. Agrogiannis GD, Sifakis S, Patsouris ES and Konstantinidou AE. 2014. Mol Med Rep. 10(2): 579-584.