

TECHNICAL DATA SHEET

Recombinant Human IGF-BP1 (Carrier-free)

Catalog Number: 21-7066

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human IGF-BP1 (Carrier-free)

DESCRIPTION

Insulin-like growth factor binding proteins (IGF-BPs) are a family of secreted proteins with conserved amino- and carboxy-terminal sequences and variable mid-regions. IGF-BPs control the distribution, function and activity of IGFs in various cell tissues and body fluids. IGF-BP1 is expressed in serum, liver, decidua, kidneys and amniotic fluid, and binds to IGFs I and II. Phosphorylated IGF-BP1 hinders IGF actions, whereas nonphosphorylated IGF-BP1 is stimulatory. Insulin and corticosteroids affect hepatocyte production of IGF-BP1.

MOLECULAR MASS

Recombinant human IGF-BP1 is a 25.4 kDa protein consisting of 235 amino acid residues (Isoform A).

AMINO ACID SEQUENCE

MAPWQCAPCS AEKLALCPPV SASCSEVTRS AGCGCCPMCA LPLGAACGVA TARCARGLSC RALPGEQQPL HALTRGQGAC
 VQESDASAPH AAEAGSPESP ESTEITEEEL LDNFHLMAPS EEDHSILWDA ISTYDGSKAL HVTNIKKWKE PCRIELRVV ESLAKAQETS
 GEEISKFYLP NCNKNGFYHS RQCETSMDGE AGLCWCVYPW NGKRIPGSPE IRGDPNCQIY FNVQN

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

BIOACTIVITY

The ED₅₀ was determined by its ability to inhibit IGF-I induced proliferation of MCF-7 is ≤ 0.5 μg/ml in the presence of 6 ng/ml of human IGF-I.

RESEARCH AREAS

Apoptosis; Cancer; Diabetes / Weight Regulation; Proliferation

RECONSTITUTION

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

REFERENCES

Ferry RJ Jr, Cerri RW and Cohen P. 1999. *Horm Res.* 51(2): 53-67. Jones JI and Clemmons DR. 1995. *Endocr Rev.* 16(1): 3-34. Kelley KM, Oh Y, Gargosky SE, Gucev Z, Matsumoto T, Hwa V, Ng L, Simpson DM and Rosenfeld RG. 1996. *Int J Biochem Cell Biol.* 28(6): 619-637. Brewer MT, Stetler GL, Squires CH, Thompson RC, Busby WH and Clemmons DR. 1988. *Biochem Biophys Res Commun.* 152(3): 1289-1297.

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