

**TECHNICAL DATA SHEET**

**Recombinant Human FGF-23 (Carrier-Free)**

Catalog Number: 21-9045

**RPx-Pro™ Recombinant Protein**  
**PRODUCT INFORMATION**

**CONTENTS**

Recombinant Human FGF-23 (Carrier-Free)

**DESCRIPTION**

The FGF family plays a central role during prenatal development, postnatal growth and regeneration of a variety of tissues, by promoting cellular proliferation and differentiation. FGF-23, FGF-21 and FGF-19 constitute an atypical FGF subfamily whose ligands act as circulating hormones and require the participation of a Klotho protein as a co-receptor for their signaling. FGF-23 is a bone-derived hormone that acts in the kidney to regulate phosphate homeostasis and vitamin D metabolism. The signaling receptor for FGF-23, a Klotho-FGFR1 (IIIc) complex, is an essential regulator of the renal sodium phosphate co-transporter and key vitamin D-metabolizing enzymes CYP27B1 and CYP24A1.

**MOLECULAR MASS**

Recombinant Human FGF-23 is a 25.5 kDa globular protein containing 228 amino acid residues.

**AMINO ACID SEQUENCE**

MYPNASPLLG SSWGGLIHLY TATARNSYHL QIHKNGHVDG APHQTIYSAL MIRSEDAGFV VITGVMSRRY LCMDFRGNIF GSHYFDPENC RFQHQTLENG YDVYHSPQYH FLVSLGRAKR AFLPGMNPYP YSQFLSRRNE IPLIHFNTPI PRRHTRS AED DSERDPLNVL KPRARMT PAP ASCSQELPSA EDNSPMASDP LGVVRGGRVN THAGGTGPEG CRPFAKFI

**SOURCE**

E.coli

**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 (<1EU/µg).

**AUTHENTICITY**

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

**CROSS REACTIVITY**

**BIOACTIVITY**

Determined by its ability to stimulate the proliferation of Mouse NIH-3T3 cells. The expected ED50 for this effect is 2.0-5.0 µg/ml, in the presence of Mouse Klotho and heparin.

**RESEARCH AREAS**

Proliferation, Stem Cells & Differentiation, Angiogenesis/Cardiovascular, FGF Superfamily, Bones, Skeletal, Cartilage

**RECONSTITUTION**

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

**REFERENCES**

Paranhos-Neto FP, Lima GAC, Silva LC, Madeira M, Vieira Neto L, Mendonça LMC, Lima ICB, Delgado AG, Leite M Jr, Gomes CP, Farias MLF. Clin Nephrol. 2017 Nov 30. doi: 10.5414/CN109006. Wilimborek J, Nowicki M, Kurnatowska I. Transplant Proc. 2017 Nov;49(9):2086-2091. doi: 10.1016/j.transproceed.2017.07.009.

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