

TECHNICAL DATA SHEET

Recombinant Human/Mouse/Rat GDF-11 (Carrier-Free)

Catalog Number: 21-9067

RPx-Pro™ Recombinant Protein
PRODUCT INFORMATION

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Recombinant Human/Mouse/Rat GDF-11 (Carrier-Free)

DESCRIPTION

GDF-11 is a myostatin-homologous protein that acts as an inhibitor of nerve tissue growth. GDF-11 has been shown to suppress neurogenesis through a myostatin-like pathway, which involves the arrest of the progenitor cell cycle in the G1 phase. Similarities between myostatin and GDF-11 suggest that the regulatory mechanisms responsible for maintaining proper tissue size during neural and muscular development might be the same. It is highly homologous to myostatin/GDF-8, sharing 90% amino acid sequence identity.

MOLECULAR MASS

Recombinant Human GDF-11 is a 25.0 kDa disulfide-linked homodimer containing two 109 amino acid polypeptide chains.

AMINO ACID SEQUENCE

NLGLDCDEHS SESRCCRYPL TVDFEAFGWD WIIAPKRYKA NYCSGQCEYM FMQKYPHTHL VQQANPRGSA GPCCTPTKMS PINMLYFNDK QQIIYGKIPG MVDRCGCS

SOURCE

E.coli

APPLICATIONS

Bioassay

PURITY

98 %

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

Human, Mouse, Rat

BIOACTIVITY

The ED50 was determined by its ability to inhibit induced alkaline phosphatase production by ATDC-5 chondrogenic cells. The expected ED50 for this effect is 0.08-0.10 µg/ml.

RESEARCH AREAS

Stem Cells & Differentiation, TGF-Beta Superfamily

RECONSTITUTION

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

REFERENCES

Loffredo, F.S. Growth differentiation factor 11 is a circulating factor that reverses age-related cardiac hypertrophy. 2013. Cell; 153(4):828-39. Lippmann, E.S. Deterministic HOX Patterning in Human Pluripotent Stem Cell-Derived Neuroectoderm. 2015. Stem Cell Reports; 4(4):632-44

Citations are provided as a resource for additional applications that have not been validated by Tonbo Biosciences. Please choose the appropriate format for each application and consult Materials and Methods sections for additional details about the use of any product in these publications.

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