

User Manual

**Recombinant Human Growth Differentiation Factor 5
/Bone Morphogenetic Protein-14
(GDF-5/BMP-14)(Human)
Cat. No. HEOPP-0709(1-3)**

Description:

Growth/differentiation factors (GDF-1 to GDF-15) are members of the BMP family of TGF-beta superfamily proteins. They are produced as inactive preproteins which are then cleaved and assembled into active secreted homodimers. GDF dimers are disulfide-linked with the exception of GDF-3 and -9. GDF proteins are important during embryonic development, particularly in the skeletal, nervous, and muscular systems.

Source:

Escherichia coli

Unit:

10 µg / 100 µg / 500 µg

Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile 4 mM HCl to a concentration of 0.1 -1.5 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriately buffered solutions.

Formulation:

Lyophilized from a 0.2 µm filtered concentrated solution in 30% Acetonitrile and 0.1% TFA.

Storage:

This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

Molecular Weight:

Approximately 27.1 kDa, a disulfide-linked homodimeric protein containing two 120 amino acids.

Endotoxin:

Less than 1 EU/ μ g of rHuGDF-5/BMP-14 as determined by LAL method.

Usage:

This material is offered by Cyagen Biosciences for research, laboratory or further evaluation purposes. FOR RESEARCH USE ONLY. NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAP EUTIC OR DIAGNOSTIC USE.

Biological Activity:

Fully biologically active when compared to standard. The ED50 as determined by inducing alkaline phosphatase production of murine ATDC5 cells is less than 1.0 μ g/ml, corresponding to a specific activity of > 1000 IU/mg.

Physical Appearance:

Sterile filtered white lyophilized (freeze-dried) powder.

AA Sequence:

APLATRQGKR PSKNLKARCS RKALHVNFKD MGWDDWIIAP LEYEAFHCEG
LCEFPLRSHL EPTNHAVIQT LMNSMDPEST PPTCCVPTRL SPISILFIDS
ANNVYKQYE DMVVESGCR

Purity:

> 95% by SDS-PAGE and HPLC analyses.

Material Safety Data Sheets (MSDSs) are available upon request.

The Certificate of Analysis (COA), which provides detailed quality control information for each product, is also available at the Cyagen website.

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