

## Recombinant Human Growth Differentiation Factor 7/Bone Morphogenetic Protein-12

### Information

Gene ID	151449
Accession #	Q7Z4P5
Alternate Names	
Source	Escherichia coli.
M.Wt	Approximately 28.0 kDa, a disulfide-linked homodimeric protein containing two 129 amino acids.
AA Sequence	TALAGTRTAQ GSGGGAGRGH GRRGRSRCSR KPLHVDKEL GWDDWIIAPL DYEAYHCEGL CDFPLRSHLE PTNHAIQTL LNSMAPDAAP ASCCVPARLS PISILYIDAA NNVVYKQYED MVVEACGCR
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 12 months from date of receipt, -20 to -70 °C as supplied - 1 month, 2 to 8 °C under sterile conditions after reconstitution - 3 months, -20 to -70 °C under sterile conditions after reconstitution
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 30 % Acetonitrile and 0.1 % TFA.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The ED as determined by inducing alkaline phosphatase production of murine ATDC5 cells is less than 1.0 µg/ml, corresponding to a specific activity of > 1000 IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	10µg	100µg	500µg
Recombinant Human Growth Differentiation Factor 7/Bone Morphogenetic Protein-12	10µg	100µg	500µg

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- 12 months from date of receipt, -20 to -70 °C as supplied
- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 3 months, -20 to -70 °C under sterile conditions after reconstitution

## Quality Control

Purity	> 95 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 0.1 EU/μg of rHuGDF-7/BMP-12 as determined by LAL method.

## 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.

## Reference

**APExBIO Technology**

**[www.apexbt.com](http://www.apexbt.com)**

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: [info@apexbt.com](mailto:info@apexbt.com)