

## Recombinant Mouse Growth Differentiation Factor 5/Bone Morphogenetic Protein-14 (Mouse GDF-5/BMP-14)

### Product Information

Product Name	Cat#	Size
Recombinant Mouse Growth Differentiation Factor 5/Bone Morphogenetic Protein-14 (Mouse GDF-5/BMP-14)	92005ES10	10 µg
	92005ES60	100 µg
	92005ES76	500 µg

### Product Description

Growth Differentiation Factor-5 (GDF-5; also called BMP-14 and CDMP-1) is a member of the BMP family of TGF-beta superfamily proteins. Mature mouse GDF-5 shares 99% aa sequence identity with both mature human and rat GDF-5. 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. GDF-5 is involved in multiple developmental processes including limb generation, cartilage development, joint formation, bone morphogenesis, cell survival, and neuritogenesis.

### Product Properties

<b>Synonyms</b>	CDMP-1, GDF5, OS5, radotermin, SYNS2
<b>Accession</b>	P43027
<b>GeneID</b>	14563
<b>Source</b>	E.coli-derived mouse GDF-5/BMP-14 protein, Ala376-Arg495.
<b>Molecular Weight</b>	Approximately 27.2 kDa.
<b>AA Sequence</b>	APLANRQGKR PSKLNKARCS RKALHVNFKD MGWDDWIIAP LEYEAHFHCEG LCEFPLRSHL EPTNHAVIQT LMNSMDPEST PPTCCVPTL SPISILFIDS ANNVVYKQYE DMVVESCGCR
<b>Tag</b>	None
<b>Physical Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Purity</b>	>96% by SDS-PAGE and HPLC analyses.
<b>Biological Activity</b>	The ED <sub>50</sub> as determined by inducing alkaline phosphatase production of mouse ATDC5 cells is less than 1.0 µg/ml, corresponding to a specific activity of > 1000 IU/mg. Fully biologically active when compared to standard.
<b>Endotoxin</b>	< 0.1 EU per 1µg of the protein by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 30% Acetonitrile and 0.1% TFA. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
<b>Reconstitution</b>	Reconstitute in 4 mM HCl 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.

### Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

### **Cautions**

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!