



Synonym

GDF-2,GDF2,BMP-9,BMP9

Source

Human GDF-2, Tag Free(GD2-H5211) is expressed from human 293 cells (HEK293). It contains AA Ser 320 - Arg 429 (Accession # [Q9UK05-1](#)).

Predicted N-terminus: Ser 320

Molecular Characterization

GDF-2(Ser 320 - Arg 429)
Q9UK05-1

This protein carries no "tag".

The protein has a calculated MW of 12.1 kDa. The protein migrates as 13 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in ACN, TFA in Water with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

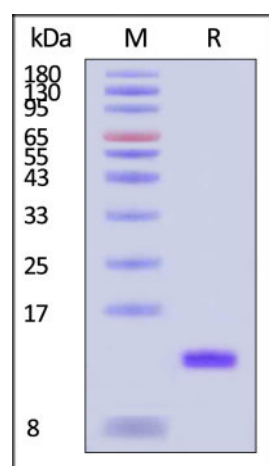
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

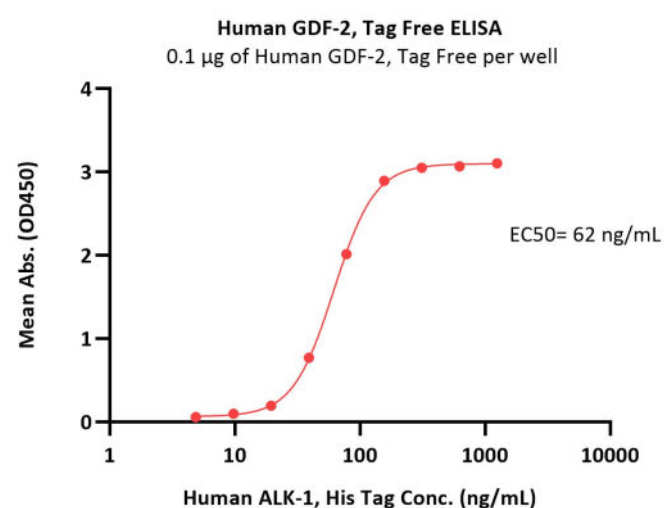


Human GDF-2, Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA

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Immobilized Human GDF-2, Tag Free (Cat. No. GD2-H5211) at 1 µg/mL (100 µL/well) can bind Human ALK-1, His Tag with a linear range of 20-156 ng/mL (QC tested).

Background

Human Growth and differentiation factor 2 (GDF-2), also known as Bone morphogenetic protein 9 (BMP-9), is a member of the BMP subgroup of the TGF-beta superfamily proteins that signal through heterodimeric complexes composed of type I and type II BMP receptors. GDF-2 is a potent circulating inhibitor of angiogenesis. Signals through the type I activin receptor ACVRL1 but not other Alks. Signaling through SMAD1 in endothelial cells requires TGF-beta coreceptor endoglin/ENG. ALK1 is a signalling receptor for bone morphogenetic protein-9 (BMP-9) in endothelial cells (ECs). BMP-9 binds with high affinity to ALK1 and endoglin, and weakly to the type-I receptor ALK2 and to the BMP type-II receptor (BMPRII) and activin type-II receptor (ActRII) in transfected COS cells. Binding of BMP-9 to ALK2 was greatly facilitated when BMPRII or ActRII were co-expressed.

Clinical and Translational Updates

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