

**Synonym**

Latent GDF-2, Latent GDF2, Latent BMP-9, Latent BMP9

**Source**

Human Latent GDF-2, His Tag(GD2-H52H3) is expressed from human 293 cells (HEK293). It contains AA Lys 23 - Arg 429 (Accession # [Q9UK05-1](#)).

Predicted N-terminus: His

**Molecular Characterization**

Poly-his Latent GDF-2(Lys 23 - Arg 429)  
Q9UK05-1

This protein carries a polyhistidine tag at the N-terminus

The protein has a calculated MW of 47.0 kDa. The protein migrates as 13 kDa and 40-45 kDa 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.

>90% as determined by SEC-MALS.

**Formulation**

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 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.*

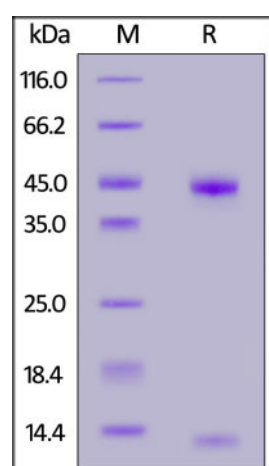
**Storage**

After reconstitution, this product is stable after storage at -20°C or lower.

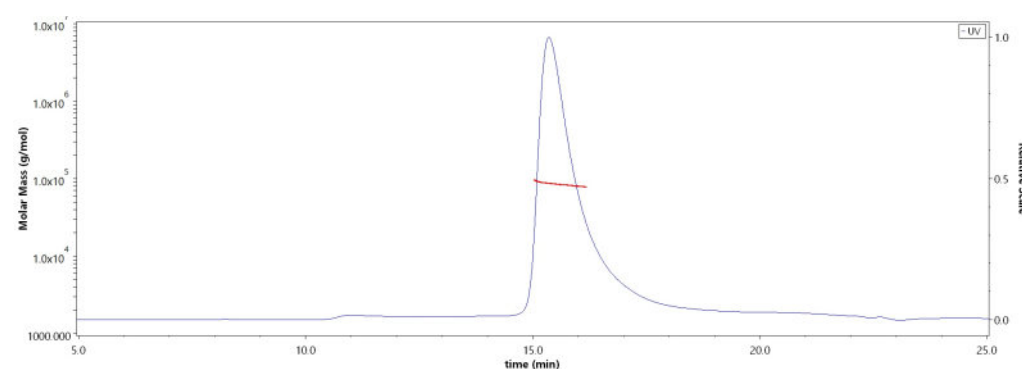
*Please avoid repeated freeze-thaw cycles.*

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 Latent GDF-2, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

**SEC-MALS**

The purity of Human Latent GDF-2, His Tag (Cat. No. GD2-H52H3) is more than 90% and the molecular weight of this protein is around 80-95 kDa verified by SEC-MALS.

[Report](#)

**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 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 bound with high affinity to ALK1 and endoglin, and

weakly to the type-I receptor ALK2 and to the BMP type-II receptor (BMPR-II) and activin type-II receptor (ActR-II) in transfected COS cells. Binding of BMP-9 to ALK2 was greatly facilitated when BMPR-II or ActR-II were co-expressed.

### Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.