

Human GDF-2/BMP-9 Protein, Ultra Low Endotoxin



Cat. No. GDF-HM002-UL

Description	
Source	Recombinant Human GDF-2/BMP-9 Protein is expressed from HEK293 without tag. It contains Ser320-Arg429.
Accession	Q9UK05
Molecular Weight	The protein has a predicted MW of 12.08 kDa. Due to glycosylation, the protein migrates to 13-15 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 0.001 EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE

Formulation and Storage	
Formulation	Lyophilized from 0.22 µm filtered solution in 4mM HCL. Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in 4mM HCL. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background	
Bone morphogenetic proteins (BMPs) are expressed in different cell types of the human ovarian follicle and play important roles in the regulation of ovarian function. BMP-9, also known as growth differentiation factor-2 (GDF-2), belongs to the transforming growth factor-beta (TGF-β) superfamily. BMP-9 is mainly synthesized in the liver and secreted into the blood which allows it to regulate various physiological and pathological functions.	

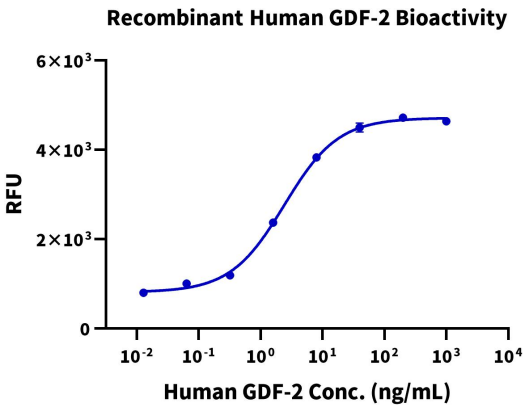
Assay Data

Bis-Tris PAGE



Human GDF-2 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

Cell Based Assay

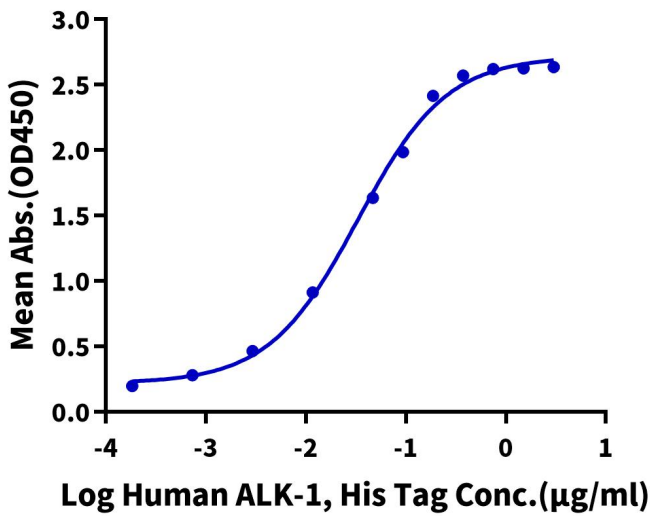


Measured by its ability to induce alkaline phosphatase production by ATDC5 mouse chondrogenic cells. The ED50 for this effect is 0.4-4 ng/mL (QC Test).

ELISA Data

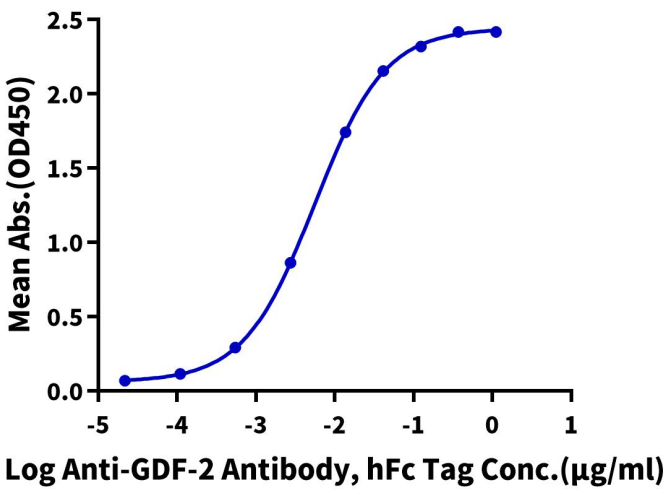
Assay Data

Human GDF-2, No Tag ELISA
0.2µg Human GDF-2, No Tag Per Well



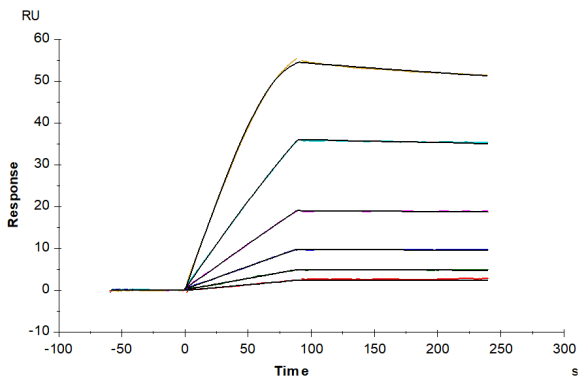
Immobilized Human GDF-2, No Tag at 2µg/ml (100µl/well) on the plate. Dose response curve for Human ALK-1, His Tag with the EC50 of 33.1ng/ml determined by ELISA (QC Test).

Human GDF-2, No Tag ELISA
0.1µg Human GDF-2, No Tag Per Well



Immobilized Human GDF-2, No Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Anti-GDF-2 Antibody, hFc Tag with the EC50 of 5.5ng/ml determined by ELISA.

SPR Data



Human/Cynomolgus Activin RIIb, hFc Tag captured on CM5 Chip via Protein A can bind Human GDF-2, No Tag with an affinity constant of 26.57 pM as determined in SPR assay (Biacore T200).