Human/Mouse/Rat GDF-8 Protein

Cat. No. GDF-HM008

Description

Source	Recombinant Human/Mouse/Rat GDF-8 Protein is expressed from HEK293 without tag.
	It contains Asp267-Ser375 (Human) / Asp268-Ser376 (Mouse/Rat).
Accession	O14793(Human) /O08689(Mouse) /O35312(Rat)
Molecular Weight	The protein has a predicted MW of 12.40 kDa. Due to glycosylation, the protein migrates to 13-15 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1 EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE

Formulation and Storage

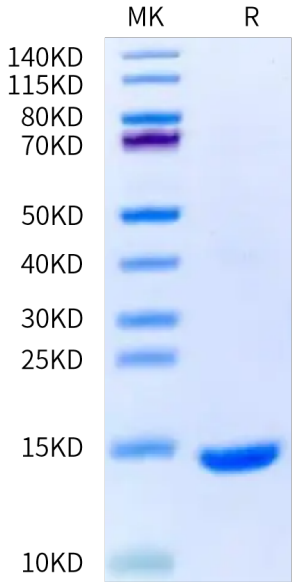
Formulation	Lyophilized from 0.22 μm filtered solution in 4 mM HCl. Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in 4mM HCL. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-20 to -80°C for 12 months 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

Growth/differentiation factor 8 (GDF8), or myostatin, negatively regulates muscle mass. GDF8 is held in a latent state through interactions with its N-terminal prodomain. GDF8, like numerous TGF-β family members, is a disulfidelinked dimer that is synthesized as a precursor protein which requires cleavage by a furin-like protease to yield an N-terminal prodomain and a C-terminal mature, signaling domain.

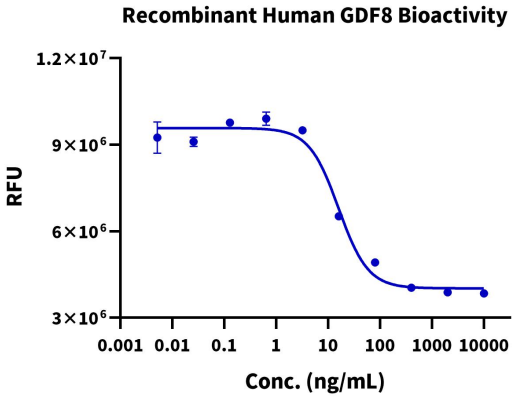
Assay Data

Bis-Tris PAGE



Human/Mouse/Rat GDF-8 on Bis-Tris PAGE under reduced (R) condition. The purity is greater than 95%.

Cell Based Assay



Determined by its ability to inhibit the proliferation of MPC-11 cells. The expected ED50 for this effect is <30 ng/ml (QC Test).

ELISA Data

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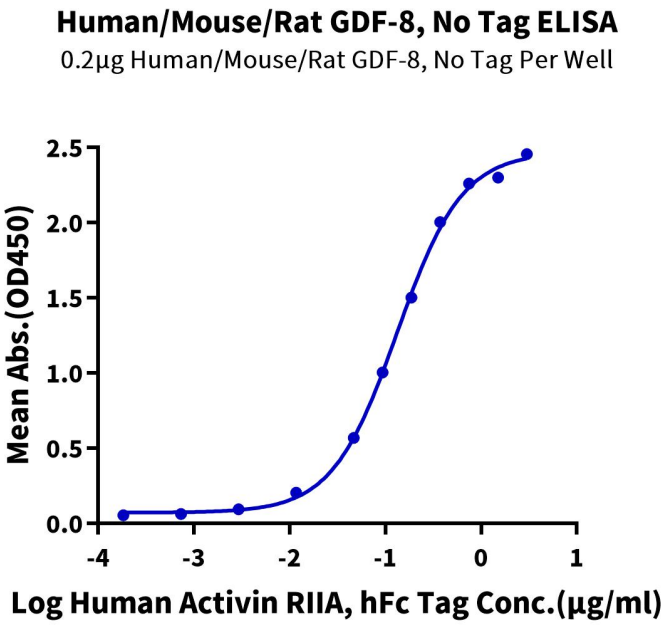
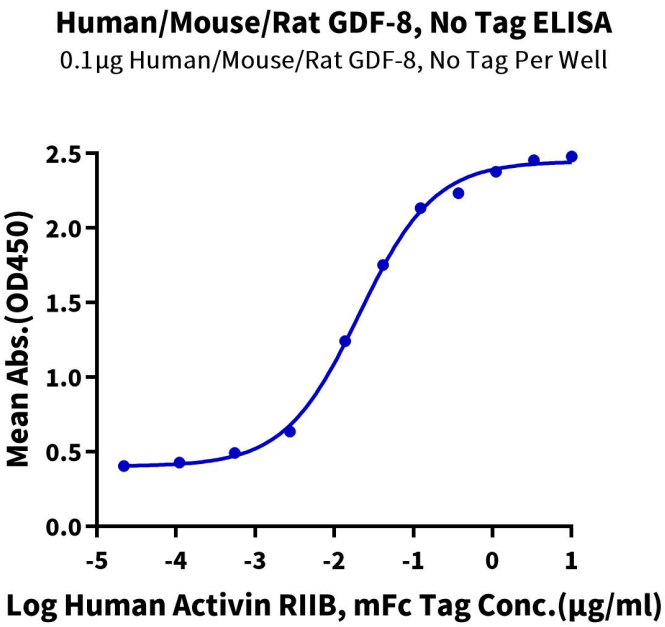
Assay Data



Immobilized Human/Mouse/Rat GDF-8, No Tag at 2 μg/ml (100 μl/well) on the plate. Dose response curve for Human Activin RIIA, hFc Tag with the EC50 of 0.13 μg/ml determined by ELISA (QC Test).



Immobilized Human/Mouse/Rat GDF-8, No Tag at 1 μg/ml (100 μl/well) on the plate. Dose response curve for Human Activin RIIB, mFc Tag with the EC50 of 20.8 ng/ml determined by ELISA.

ELISA Data

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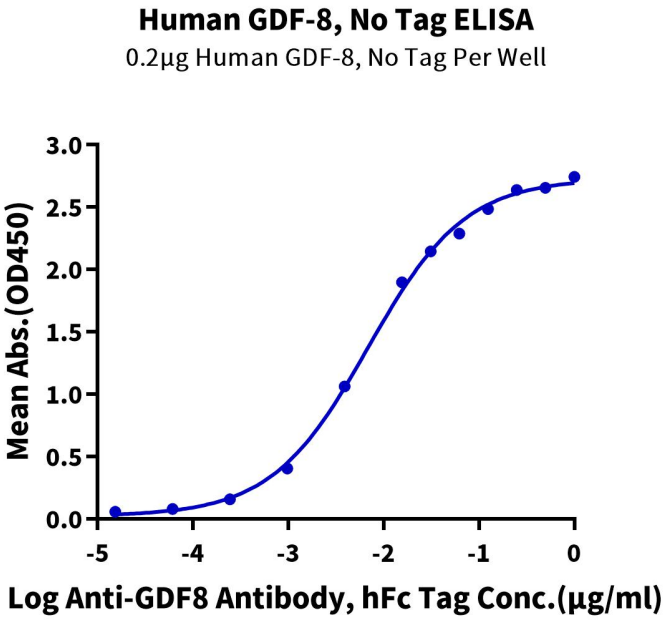
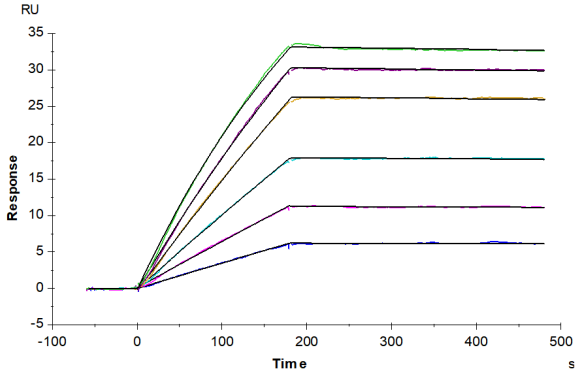
Assay Data



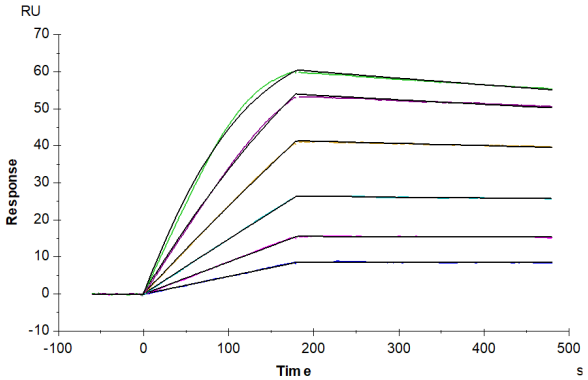
Immobilized Human GDF-8, No Tag at 2 μg/ml (100 μl/well) on the plate. Dose response curve for Anti-GDF8 Antibody, hFc Tag with the EC50 of 6.9 ng/ml determined by ELISA.

SPR Data



Human Activin RIIA, hFc Tag captured on CM5 Chip via Protein A can bind Human/Mouse/Rat GDF-8, No Tag with an affinity constant of 0.13 nM as determined in SPR assay (Biacore T200).

SPR Data



Biotinylated Activin RIIB, His Tag captured on CM5 Chip via Streptavidin can bind Human/Mouse/Rat GDF-8, No Tag with an affinity constant of 0.24 nM as determined in SPR assay (Biacore T200).

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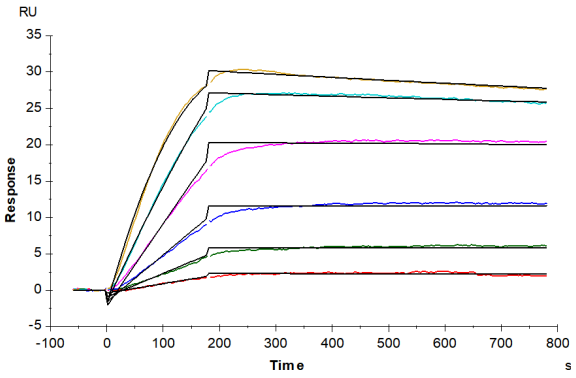
Assay Data



Anti-GDF8 Antibody, hFc-Avi Tag captured on CM5 Chip via Protein A can bind Human/Mouse/Rat GDF-8, No Tag with an affinity constant of 49.45 pM as determined in SPR assay (Biacore T200).