

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

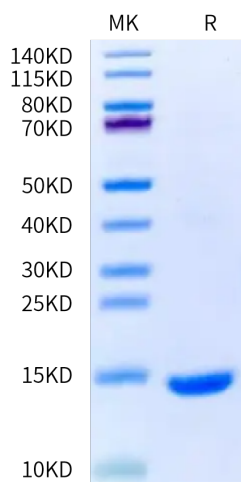
Formulation	Lyophilized from 0.22 μm filtered solution in 4 mM HCl. Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in 4 mM HCl.
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

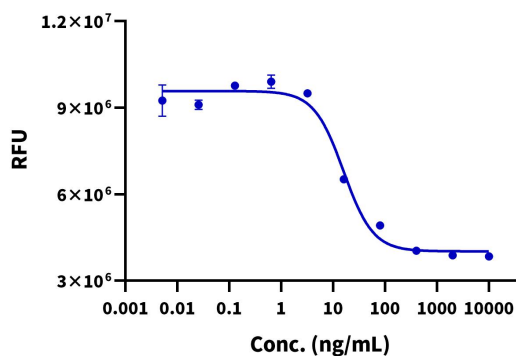
Bis-Tris PAGE



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

Cell Based Assay

Recombinant Human GDF8 Bioactivity



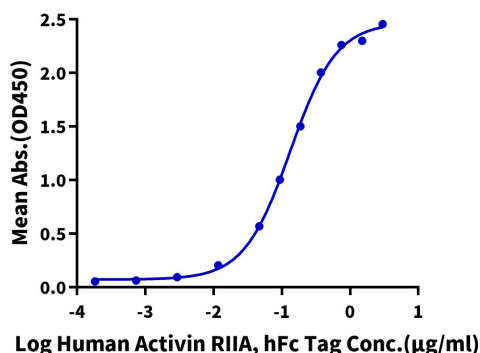
Determined by its ability to inhibit the proliferation of MPC-11 cells. The expected ED50 for this effect is <30 ng/ml (QC Test).

Assay Data

ELISA Data

Human/Mouse/Rat GDF-8, No Tag ELISA

0.2µg Human/Mouse/Rat GDF-8, No Tag Per Well

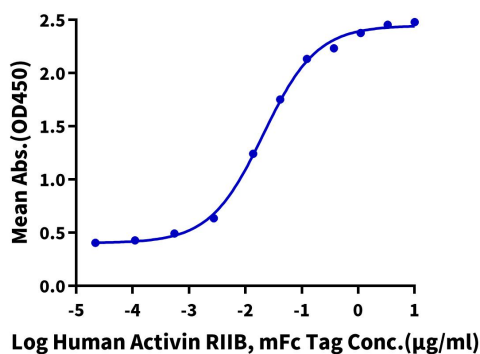


Immobilized Human/Mouse/Rat GDF-8, No Tag at 2 µg/ml (100 µl/well) on the plate. Dose response curve for Human Activin RIIA, hFc Tag with the EC50 of 0.13 µg/ml determined by ELISA (QC Test).

ELISA Data

Human/Mouse/Rat GDF-8, No Tag ELISA

0.1µg Human/Mouse/Rat GDF-8, No Tag Per Well

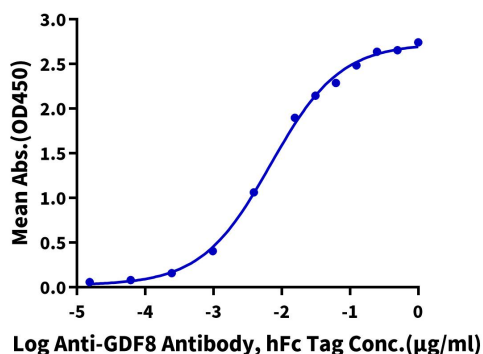


Immobilized Human/Mouse/Rat GDF-8, No Tag at 1 µg/ml (100 µl/well) on the plate. Dose response curve for Human Activin RIIB, mFc Tag with the EC50 of 20.8 ng/ml determined by ELISA.

ELISA Data

Human GDF-8, No Tag ELISA

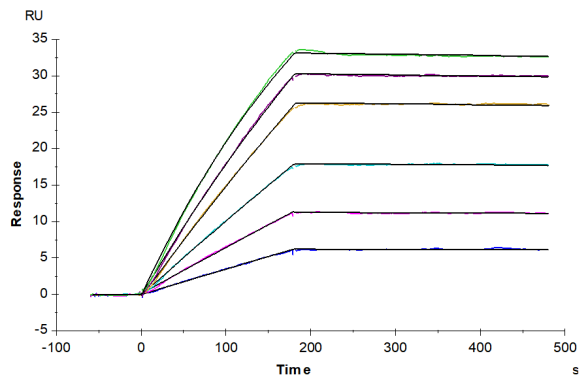
0.2µg Human GDF-8, No Tag Per Well



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.

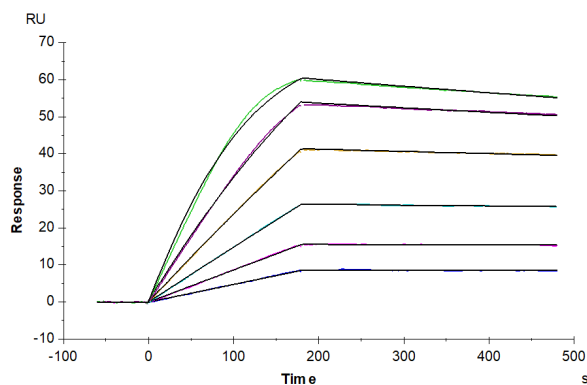
SPR Data

Assay Data



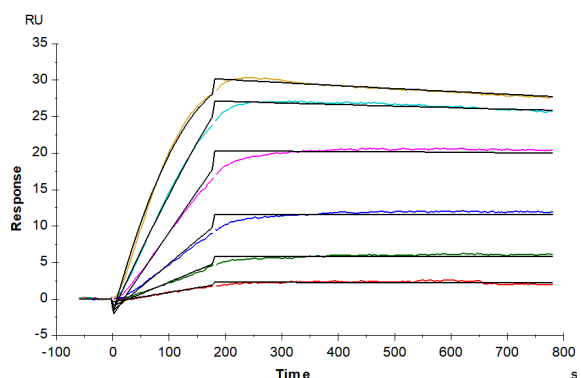
Human Activin RIIA, hFc Tag captured on CM5 Chip via Protein A can bind Human/Mouse/Rat GDF-8, No Tag with an affinity constant of 0.13 nM as determined in SPR assay (Biacore T200).

SPR Data



Biotinylated Activin RII B, 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).

SPR 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).