

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.
Accession	O14793
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

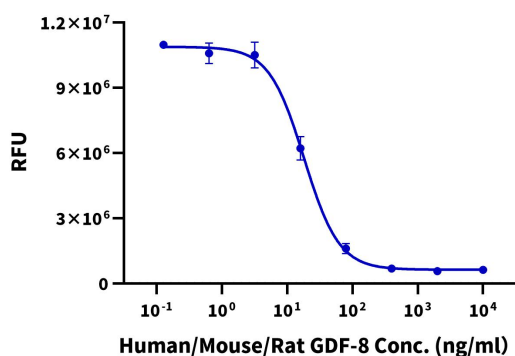
Bis-Tris PAGE



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

Cell Based Assay

Human/Mouse/Rat GDF-8 Bioactivity



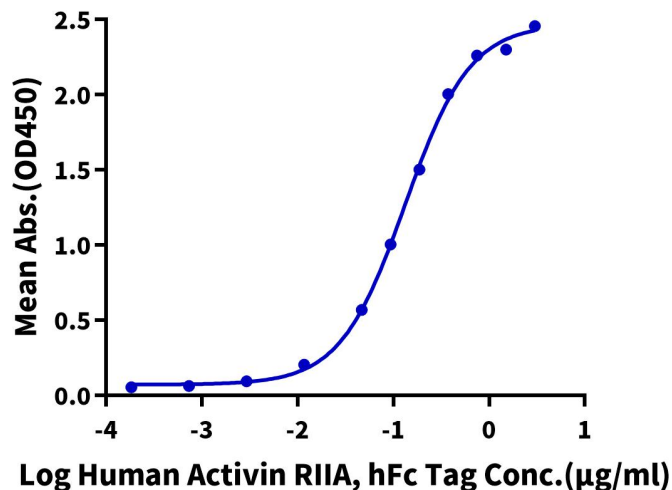
Determined by its ability to inhibit the proliferation of MPC-11 cells. The expected ED50 for this effect is <30 ng/ml (QC Test).

Assay Data

ELISA Data

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

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

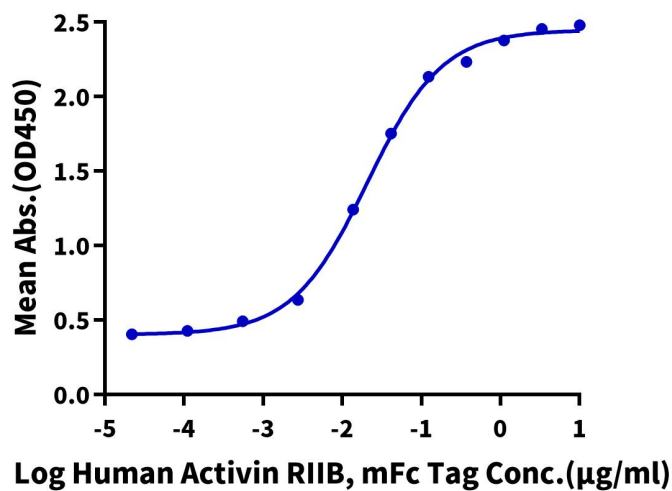


Immobilized Human/Mouse/Rat GDF-8, No Tag at 2 µg/ml (100 µl/well) on the plate. Dose response curve for Human Activin RIIA, hFc Tag with the EC50 of 0.13 µg/ml determined by ELISA (QC Test).

ELISA Data

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

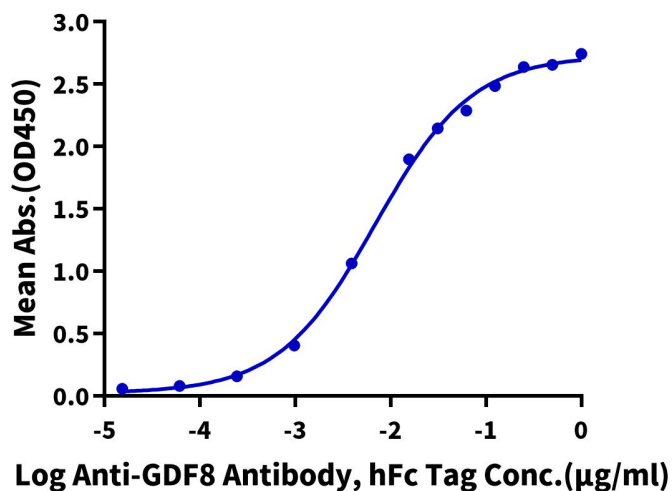
0.1µg Human/Mouse/Rat GDF-8, No Tag Per Well



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.

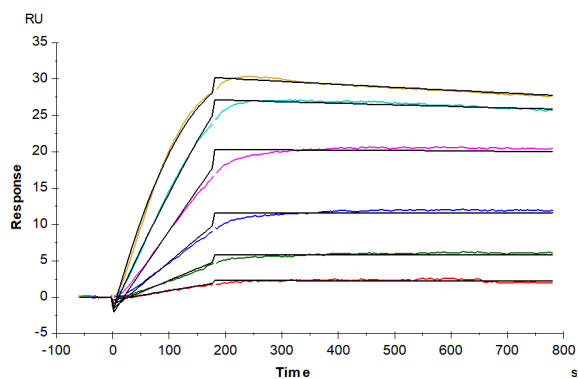
ELISA Data

Assay Data

Human GDF-8, No Tag ELISA0.2 μ g Human GDF-8, No Tag Per Well

Immobilized Human GDF-8, No Tag at 2 μ g/ml (100 μ l/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



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).