

Human GFRAL/GFR alpha-like Protein

Cat. No. GFL-HM201

Description

Source	Recombinant Human GFRAL/GFR alpha-like Protein is expressed from HEK293 with hFc tag at the C-Terminus. It contains Ser19-Glu351.
Accession	Q6UXV0
Molecular Weight	The protein has a predicted MW of 64.6 kDa. Due to glycosylation, the protein migrates to 70-80 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage

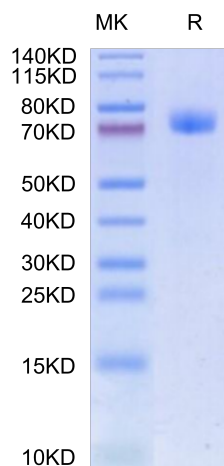
Formulation	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
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

GFR alpha-like (GDNF receptor-alpha-like) is a distant member of the GDNFR family of proteins. Mature human GFR alpha-like is a 376 amino acid (aa) type I transmembrane protein. It contains a 333 aa extracellular domain, a 20 aa transmembrane domain and a 23 aa cytoplasmic domain. GFRAL is a brainstem-restricted receptor for GDF15 which regulates food intake, energy expenditure and body weight in response to metabolic and toxin-induced stresses.

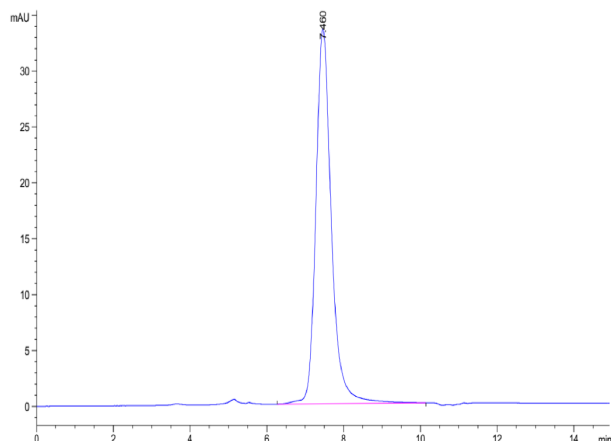
Assay Data

Bis-Tris PAGE



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

SEC-HPLC



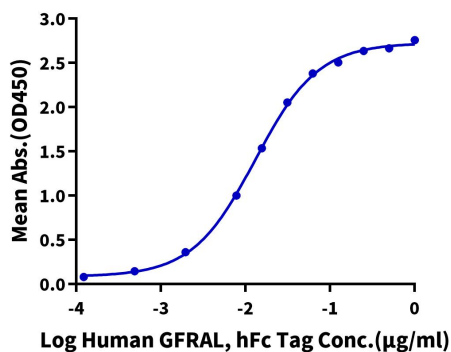
The purity of Human GFRAL is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

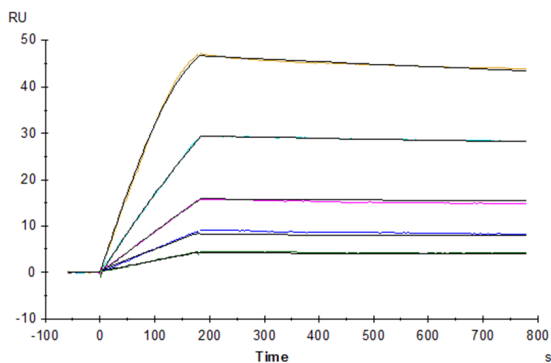
Human GFRAL, hFc Tag ELISA

0.05µg Human GDF15, His Tag Per Well



Immobilized Human GDF15, His Tag at 0.5µg/ml (100µl/well) on the plate. Dose response curve for Human GFRAL, hFc Tag with the EC50 of 13.1ng/ml determined by ELISA (QC Test).

SPR Data



Human GFRAL, hFc Tag captured on CM5 Chip via Protein A can bind Human GDF15, His Tag with an affinity constant of 0.014 nM as determined in SPR assay (Biacore T200).