

GFRAL/GFR alpha-like Protein, Mouse, Recombinant (His & Avi)

General Information

Synonyms:	GFRAL/GFR α -like Protein;GFR α -like;GRAL;C6orf144;GFR alpha-like;GFRAL
Protein Construction:	Gln20-Glu350
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q6SJE0-1
Molecular Weight:	40.1 kDa (predicted). Due to glycosylation, the protein migrates to 48-60 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	<ol style="list-style-type: none">1. Immobilized Mouse GFRAL, His Tag at 2μg/ml (100μl/well) on the plate. Dose response curve for Mouse GDF15, hFc Tag with the EC50 of 3.0ng/ml determined by ELISA (QC Test).2. Mouse GFRAL, His Tag immobilized on CM5 Chip can bind Mouse GDF15, His Tag with an affinity constant of 0.34 nM as determined in SPR assay.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/ μ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μ m filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:	Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μ g/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.
Stability & Storage:	It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots. <small>Actual storage temperature shall be subject to the COA.</small>
Shipping:	In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein 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.

Reference

Yang L, et al. GFRAL is the receptor for GDF15 and is required for the anti-obesity effects of the ligand. Nat Med. 2017;23(10):1158-1166. doi:10.1038/nm.4394

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