

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived		
	Human GFR alpha-like (Ser19-Glu351) Accession # Q6UXV0	IEGRMD	Human IgG ₁ (Pro100-Lys330)
	N-terminus		C-terminus
N-terminal Sequence Analysis	Ser19		
Structure / Form	Disulfide-linked homodimer		
Predicted Molecular Mass	64 kDa		

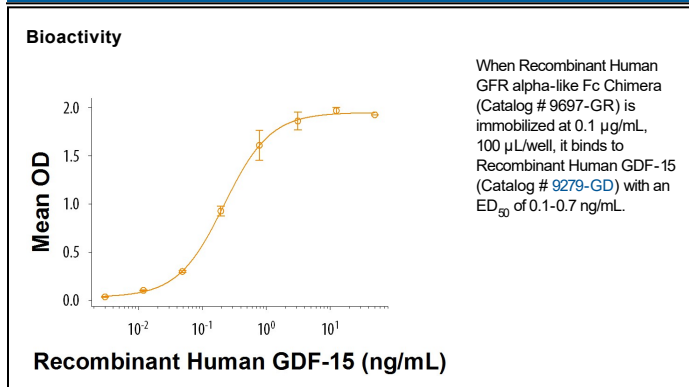
SPECIFICATIONS

SDS-PAGE	62-90 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human GFR α -like Fc Chimera is coated at 0.1 μ g/mL, 100 μ L/well, it binds to Recombinant GDF-15 (Catalog # 9279-GD) with an ED ₅₀ of 0.1-0.7 ng/mL.
Endotoxin Level	<0.10 EU per 1 μ g of the protein by the LAL method.
Purity	>90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 μ g/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA



BACKGROUND

GFR alpha-like (GDNF receptor-alpha-like) is a distant member of the GDNFR family of proteins (1). 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. Over the extracellular domain, human GFRAL shares 72% and 71% identity with mouse and rat GFRAL respectively. It is expressed on both fetal and adult hindbrain neurons of the CNS (3), and would appear to function as an anti-apoptotic molecule during neuronal stress. GFRAL is a functional receptor for GDF-15, facilitating weight-loss functions of the protein through c-Ret downstream signaling (2-4). GFRAL and GDF-15 signaling is implicated in diet-based obesity and insulin resistance (2-4).

References:

1. Li, Z. *et al.* (2005) *J. Neurochem.* **95**:361.
2. Mullican, S. *et al.* (2017) *Nat. Med* **23**:1150.
3. Yang, L. *et al.* (2017) *Nat. Med* **23**: 1158.
4. Emmerson, P. *et al* (2017) *Nat. Med* **23**:1215.