Data Sheet (Cat.No.TMPK-00569)

TargetMol

GDF-15 Protein, Canine, Recombinant (His)

General Information

Synonyms:	GDF15;MIC1;MIC-1;PLAB;GDF-15;PDF;PTGFB;PTGF-beta;RG-1;Placental TGF-β;PTGF-β;PTGFBPTGF-beta;NAG-1;Placental TGF-beta;PTGFBPTGF-β
Protein Construction:	Ala197-Val307
Species:	Canine
Expression Host:	E. coli
Accession:	A0A8C0TNP6
Molecular Weight:	13.12 kDa (predicted). The protein migrates to 15-20 kDa under reduced (R) condition and 23-26 kDa under Non reducing (N) condition based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Immobilized Canine GDF15, His Tag at 1μg/ml (100μl/Well) on the plate. Dose response curve for Human GFRAL, hFc Tag with the EC50 of 48.3ng/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 50 mM HAc (pH 2.9). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in 50mM HAc (pH 2.9). The product concentration should not be less than 100 μg/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.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Growth Differentiation Factor 15 (GDF15), also known as NSAID activated gene-1 (NAG-1), is associated with a large number of biological processes and diseases, including cancer and obesity. GDF15 is synthesized as pro-GDF15, is dimerized, and is cleaved and secreted into the circulation as a mature dimer GDF15.

Reference

Baek SJ, Eling T. Growth differentiation factor 15 (GDF15): A survival protein with therapeutic potential in metabolic diseases. Pharmacol Ther. 2019 Jun;198:46-58. doi: 10.1016/j.pharmthera.2019.02.008. Epub 2019 Feb 18. PMID: 30790643; PMCID: PMC7196666.

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