GDF-15 Protein, Rat (His)

Cat. No.:	HY-P700727
Synonyms:	GDF-15; MIC-1; NAG-1; PDF; PLAB; PTGFB; GDF15; MIC1; RG-1; Placental TGF-beta; PTGF-beta; PTGFBPTGF-beta; Placental TGF-β; PTGF-β; PTGFBPTGF-β
Species:	Rat
Source:	E. coli
Accession:	Q9Z0J6 (S189-A303)
Gene ID:	29455
Molecular Weight:	15-17 kDa

PROPERTIES

AA Sequence	S A H L H P R D S C P L G P G R C C H L E T V Q A T L E D L G W S D W V L S P R Q L Q L S M C V G E C P H L Y R S A N T H A L I K A R L H G L Q P D R V P A P C C V P S S Y T P V V L M H R T D S G V S L Q T Y D D L V A Q G C H C A
Biological Activity	Immobilized Rat GDF15, His Tag at 5 μg/mL (100 μl/Well) on the plate. Dose response curve for Biotinylated Mouse GFRAL, His Tag with the EC_{50} of <6.2 μg/mL determined by ELISA.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of 50mM HAc, pH 2.9. Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in 50mM HAc, pH 2.9.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	GDF-15 Protein plays a crucial role in regulating food intake, energy expenditure, and body weight in response to metabolic and toxin-induced stresses. It binds to its receptor, GFRAL, leading to the activation of GFRAL-expressing neurons located in the area postrema and nucleus tractus solitarius of the brainstem. This activation subsequently triggers the activation of neurons in the parabrachial nucleus and central amygdala, forming part of the 'emergency circuit' involved in shaping feeding responses during stressful conditions. Additionally, GDF-15 Protein inhibits growth hormone signaling on hepatocytes. It exists as a homodimer that is disulfide-linked and interacts with GFRAL as its ligand, mediating GDF15

	internalization and cellular signaling through interaction with RET.

Caution: Product has not been fully validated for medical applications. For research use only.

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