Product Data Sheet

Product Name: ELA-32 (human)
Cat. No.: GC50408

Chemical Properties

Cas. No.	1680205-79-1		
Formula	C170H289N63O39S4	M.Wt	3967.8
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Gln-Arg-Pro-Val-Asn-Leu-Thr-Met-Arg-Arg-Lys-Leu-Arg-Lys-His-Asn-Cys-Leu-Gln-Arg-Arg-Cys-Met-Pro-Leu-His-Ser-Arg-Val-Pro-Phe-Pro		

Background

Potent, high affinity apelin receptor agonist (IC50 = 0.27 nM; Kd = 0.51 nM). Exhibits no binding GPR15 and GPR25. Activates the PI3K/AKT pathway and promotes self-renewal of hESCs via cell-cycle progression and protein translation. Also potentiates the TGFβ pathway, priming hESCs toward the endoderm lineage. Stimulates angiogenesis in HUVEC cells. Relaxes mouse aortic vessels. Functions as an anorexigenic hormone through activation of the AVP and CRH neurons in the PVN. Negative control (Cat.No. 6292) also available.

Deng et al (2015) Apela Regulates Fluid Homeostasis by Binding to the APJ Receptor to Activate Gi Signaling. J.Biol.Chem 290 18261 PMID:25995451 |Wang et al (2015) Elabela-apelin receptor signaling pathway is functional in mammalian systems. Sci.Rep. 5 8170 PMID:25639753 |Chaves-Almagro et al (2015) Apelin receptors: From signaling to antidiabetic strategy. Eur.J.Pharmacol. 763 149 PMID:26007641 |Chng et al (2013) ELABELA: a hormone essential for heart development signals via the apelin receptor. Dev.Cell 27 672 PMID:24316148 |Ho et al (2015) ELABELA Is an Endogenous Growth Factor that Sustains hESC Self-Renewal via the PI3K/AKT Pathway. Cell Stem

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Cell 17 435 PMID:26387754 |Santoso et al (2015) Central action of ELABELA reduces food intake and activates arginine vasopressin and corticotropin-releasing hormone neurons in the hypothalamic paraventricular nucleus. Neuroreport 26 820 PMID:26237243 |Yang et al (2017) Elabela/Toddler Is an endogenous agonist of the apelin APJ receptor in the adult cardiovascular system, and exogenous administration of the peptide compensates for the downregulation of its expression in pulmonary arterial hypertension. Circulation 135 1160 PMID:28137936

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