

ELA-32(human)

Chemical Properties

CAS No. : 1680205-79-1

Formula: C170H289N63O39S4

Molecular Weight: 3967.8

QRPVNLTMRRKLRKHNCLOQRRCMPLHSRVFPF
(Disulfide bridge: Cys₁₇-Cys₂₂)

Keep away from moisture

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

Biological Description

Description	Potent, high affinity apelin receptor agonist (IC ₅₀ = 0.27 nM; K _d = 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.
Targets(IC ₅₀)	Apelin receptor

Solubility Information

Solubility	H ₂ O: 1 mg/mL (0.25 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.252 mL	1.2601 mL	2.5203 mL
5 mM	0.0504 mL	0.252 mL	0.5041 mL
10 mM	0.0252 mL	0.126 mL	0.252 mL
50 mM	0.005 mL	0.0252 mL	0.0504 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Deng et al (2015) Apela Regulates Fluid Homeostasis by Binding to the APJ Receptor to Activate Gi Signaling. J.Biol. Chem 290 18261 PMID:

Wang et al (2015) Elabela-apelin receptor signaling pathway is functional in mammalian systems. Sci.Rep. 5 8170 PMID:

Chaves-Almagro et al (2015) Apelin receptors: From signaling to antidiabetic strategy. Eur.J.Pharmacol. 763 149 PMID:

Chng et al (2013) ELABELA: a hormone essential for heart development signals via the apelin receptor. Dev.Cell 27 672 PMID:

Ho et al (2015) ELABELA Is an Endogenous Growth Factor that Sustains hESC Self-Renewal via the PI3K/AKT Pathway. Cell Stem Cell 17 435 PMID:

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:

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:

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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