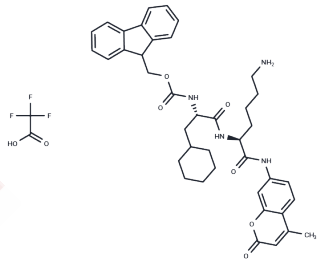
Data Sheet (Cat.No.T8559)

TargetMol

Galnon TFA

Chemical Properties



CAS No. : 1217448-19-5

Formula: C42H47F3N4O8

Molecular Weight: 792.84

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	Galnon is a novel non-peptide galanin receptor agonist (GAL1 and GAL2 with Ki of 11.7 and 34.1 μM respectively).
Targets(IC50)	Neuropeptide Y Receptor
In vivo	Galnon stimulated insulin release potently in isolated Wistar rat islets; 100 microM of the compound increased the release 8.5 times (p<0.001) at 3.3 mM and 3.7 times (p<0.001) at 16.7 mM glucose. Also in islet perifusions, galnon augmented several-fold both acute and late phases of insulin response to glucose. Furthermore, galnon stimulated insulin release in GK rat islets. These effects were not inhibited by the presence of galanin or the galanin receptor antagonist M35. The stimulatory effects of galnon were partly inhibited by the PKA and PKC inhibitors, H-89 and calphostin C, respectively, at 16.7 but not 3.3 mM glucose. In both Wistar and GK rat islets, insulin release was stimulated by depolarization of 30 mM KCl, and 100 microM galnon further enhanced insulin release 1.5-2 times (p<0.05). Cytosolic calcium levels, determined by fura-2, were increased in parallel with insulin release, and the L-type Ca2+-channel blocker nimodipine suppressed insulin response to glucose and galnon[1].galnon, a GAL receptor agonist, may enhance osteoclastic bone resorption in OVX rats. Although galnon reduced bone volume, biomechanical testing revealed that bone of galnon-treated animals was mechanically superior per unit area. Taken together, galnon simultaneously improves the intrinsic quality of cortical bone whilst stimulating osteoclastic activity in the OVX rat model[2].
Animal Research	OVX rats were treated with either vehicle or galnon for 6 weeks via mini-osmotic pumps. Plasma osteocalcin concentrations, osseous cell gene expression, morphological and biomechanical properties of the skeleton were compared between the two groups[2]

Solubility Information

Solubility	DMSO: 25 mg/mL (31.53 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.2613 mL	6.3064 mL	12.6129 mL
5 mM	0.2523 mL	1.2613 mL	2.5226 mL
10 mM	0.1261 mL	0.6306 mL	1.2613 mL
50 mM	0.0252 mL	0.1261 mL	0.2523 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

Quynh N T T , Islam S M , Anders Florén, et al. Effects of galnon, a non-peptide galanin-receptor agonist, on insulin release from rat pancreatic islets[J]. Biochem Biophys Res Commun, 2005, 328(1):213-220.
Mcgowan H W , Schuijers J A , Grills B L , et al. Galnon, a galanin receptor agonist, improves intrinsic cortical bone tissue properties but exacerbates bone loss in an ovariectomised rat model[J]. Journal of musculoskeletal & neuronal interactions, 2014, 14(2):162-172.

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