Data Sheet (Cat.No.T3422)



GRA Ex-25

Chemical Properties

CAS No.: 307983-31-9

Formula: C29H36F3N3O5

Molecular Weight: 563.61

Appearance: no data available

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

Biological Description

Description	GRA Ex-25 (GRA-Ex-25) is an inhibitor of glucagon receptor.
Targets(IC50)	Glucagon Receptor
In vitro	GRA Ex-25 binds to the human glucagon receptor (h-GlucRbind) with a Ki of 63 nM and exhibits moderate glucagon-induced adenylate cyclase inhibition (h-GlucRcyclase) with a Ki of 254 nM under our assay conditions[1], showing similar affinity for both rat and human glucagon receptors (IC50=56 and 55 nM, respectively)[2].
In vivo	GRA Ex-25 (3 mg/kg, i.v.) significantly reduces blood glucose induced by exogenous glucagon in rat models, likely through direct inhibition of glucagon-stimulated hepatic glucose output[2].

Solubility Information

Solubility	DMSO: 50 mg/mL (88.71 mM), Sonication is recommended.	
	(< 1 mg/ml refers to the product slightly soluble or insoluble)	

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7743 mL	8.8714 mL	17.7428 mL
5 mM	0.3549 mL	1.7743 mL	3.5486 mL
10 mM	0.1774 mL	0.8871 mL	1.7743 mL
50 mM	0.0355 mL	0.1774 mL	0.3549 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.

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Reference

Kurukulasuriya R, et al. Biaryl amide glucagon receptor antagonists. Bioorg Med Chem Lett. 2004 May 3;14(9): 2047-50.

Li Y, Zhou X, Cheng C, et al.Gut AstA mediates sleep deprivation-induced energy wasting in Drosophila.Cell Discovery.2023, 9(1): 49.

Lau J, et al. New beta-alanine derivatives are orally available glucagon receptor antagonists. J Med Chem. 2007 Jan 11;50(1):113-28.

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Tel:781-999-4286 E_mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481

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