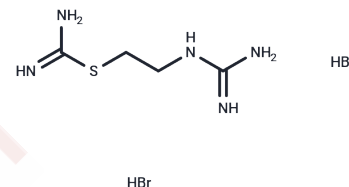


VUF 8430 dihydrobromide

Chemical Properties

CAS No. :	100130-32-3
Formula:	C ₄ H ₁₃ Br ₂ N ₅ S
Molecular Weight:	323.05
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	VUF 8430 dihydrobromide is a potent and selective histamine H4 receptor agonist with a K_i value of 31.6 nM and an EC_{50} of 50 nM, commonly used in immunology and inflammation research to investigate H4 receptor-mediated signaling, immune cell chemotaxis, cytokine release, and the role of histamine in allergic and inflammatory responses.
Targets(IC_{50})	Histamine Receptor
In vitro	In HEK293 cells expressing the human Histamine H4 receptor (H4R), VUF 8430 dihydrobromide functioned as a full agonist with a K_i of 31 nM. It inhibited forskolin-induced cAMP accumulation and triggered calcium mobilization and MAPK phosphorylation. Furthermore, the agonist induced the chemotaxis of eosinophils and mast cells in immune cell recruitment assays [1].
In vivo	In mouse models, subcutaneous injection of VUF 8430 dihydrobromide induces scratching behavior, a physiological marker of the itch response. This behavior is inhibited by selective H4 receptor antagonists, such as JNJ 7777120. These observations indicate that H4R signaling mediates histamine-induced pruritus through a pathway independent of H1 receptors [1].

Solubility Information

Solubility	H ₂ O: 100 mg/mL (309.55 mM), Sonication is recommended. DMSO: <32.31 mg/mL, 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	3.0955 mL	15.4775 mL	30.955 mL
5 mM	0.6191 mL	3.0955 mL	6.191 mL
10 mM	0.3095 mL	1.5477 mL	3.0955 mL
50 mM	0.0619 mL	0.3095 mL	0.6191 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

Lim HD, et al. Discovery of S-(2-guanidylethyl)-isothiourea (VUF 8430) as a potent nonimidazole histamine H4 receptor agonist. J Med Chem. 2006 Nov 16;49(23):6650-1.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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