Print Date: Jan 23rd 2019

Certificate of Analysis

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Product Name: **VUF 8430 dihydrobromide** **Catalog No.: 2494** **Batch No.: 2**

CAS Number: 100130-32-3

IUPAC Name: 2-[(Aminoiminomethyl)amino]ethyl carbamimidothioic acid ester dihydrobromide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_4H_{11}N_5S.2HBr.¼H_2O$

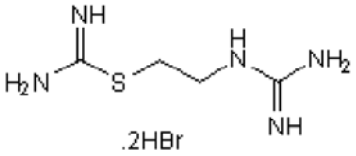
Batch Molecular Weight: 327.55

Physical Appearance: Off-white solid

Solubility: water to 100 mM
DMSO to 100 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

Melting Point: 210°C

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	14.67	4.15	21.38
Found	14.56	4.06	21.25

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

High affinity (pK_i = 7.5), potent histamine H_4 receptor full agonist (pEC_{50} = 7.3). Displays moderate affinity for H_3 receptors (pK_i = 6.0) and weak partial agonist activity at H_2 receptors.

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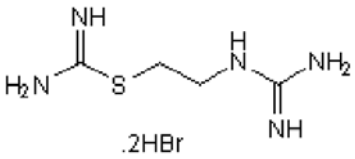

Storage: Desiccate at RT

Solubility & Usage Info:

water to 100 mM
DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Lim *et al* (2008) Phenylalanine 169 in the second extracellular loop of the human histamine H_4 receptor is responsible for the difference in agonist binding between human and mouse H_4 receptors. J.Pharmacol.Exp.Ther. ***327*** 88. PMID: 18635748.

Lim *et al* (2006) Discovery of *S*-(2-guanidylethyl)-isothiourea (VUF 8430) as a potent nonimidazole histamine H_4 receptor agonist. J.Med.Chem. ***49*** 6650. PMID: 17154494.

Sterk *et al* (1986) The influence of guanidio and isothiourea groups in histaminergic compounds on H_2-activity. Agents Actions ***18*** 137. PMID: 2942013.