

Arbutamine

Chemical Properties

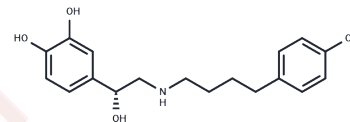
CAS No. : 128470-16-6

Formula: C₁₈H₂₃NO₄

Molecular Weight: 317.38

Storage: Keep away from direct sunlight, Store under nitrogen
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	Arbutamine (GP 21213) is a novel potent non-selective beta-adrenoceptor agonist with alpha-1-sympathomimetic activity. Arbutamine promotes cardiac stress and increases heart rate, cardiac contractility. Arbutamine can be used to study cardiac stress and coronary artery disease
Targets(IC50)	Adrenergic Receptor
In vitro	The affinity constants (K _a) of arbutamine and isoproterenol for cardiac beta1-adrenergic receptors, as determined by competition binding assays, were found to be 7.32 and 6.04, respectively[3].
In vivo	In the electrical stimulation of the left atrium of rats, Arbutamine increases contractility. The pD ₂ values (logarithm of the dose producing 50% of the maximum response) for Arbutamine and isoproterenol are 8.45 +/- 0.15 and 8.55 +/- 0.02, respectively. In the guinea pig trachea, Arbutamine and isoproterenol induced a concentration-dependent relaxation, which was inhibited by propranolol[3].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1508 mL	15.754 mL	31.508 mL
5 mM	0.6302 mL	3.1508 mL	6.3016 mL
10 mM	0.3151 mL	1.5754 mL	3.1508 mL
50 mM	0.063 mL	0.3151 mL	0.6302 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

Ruiz M, et al. Arbutamine stress perfusion imaging in dogs with critical coronary artery stenoses: (99m)Tc-sestamibi versus (201)Tl. J Nucl Med. 2002 May;43(5):664-70.

Nagarajan R, et al. A novel catecholamine, arbutamine, for a pharmacological cardiac stress agent. Cardiovasc Drugs Ther. 1996 Mar;10(1):31-8.

Abou-Mohamed G, et, al. Characterization of the adrenergic activity of arbutamine, a novel agent for pharmacological stress testing. Cardiovasc Drugs Ther. 1996 Mar;10(1):39-47.

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