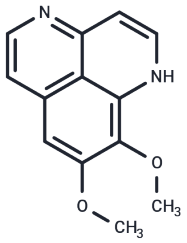
Data Sheet (Cat.No.TN1354)

TargetMol

Aaptamine

Chemical Properties



CAS No. : 85547-22-4

Formula: C13H12N2O2

Molecular Weight: 228.25

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	Aaptamine functions as a proteasome inhibitor, it activates p21 promoter in a p53-independent manner.
Targets(IC50)	Adrenergic Receptor,c-Myc,p53,TNF
In vitro	All Aaptamines were found to be equally effective in both cell lines, excluding cross-resistance between Aaptamines and cisplatin in vitro. At the inhibitory concentration (IC50), Aaptamine exerted an antiproliferative effect, whereas demethyloxyAaptamine and isoAaptamine were strong inducers of apoptosis. We analyzed the changes in the proteome of NT2-R cells treated with these compounds. 16-22 proteins were found to be significantly altered, of which several were validated by Western blotting and two-dimensional Western blotting analysis. Changes in the proteome pattern frequently resulted from post-transcriptional protein modifications, i.e. phosphorylation or hypusination in the case of eIF5A. Although the lists of altered proteins were heterogeneous and compound-specific, gene ontology analyses identified rather similar profiles regarding the affected molecular functions. Ingenuity pathway analysis by IPA put the following factors in a central position of the hypothetical networks: myc and p53 for Aaptamine; tumor necrosis factor (TNF) for demethyloxyAaptamine; and all three, myc, p53, and TNF for isoAaptamine[1]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.3812 mL	21.9058 mL	43.8116 mL
5 mM	0.8762 mL	4.3812 mL	8.7623 mL
10 mM	0.4381 mL	2.1906 mL	4.3812 mL
50 mM	0.0876 mL	0.4381 mL	0.8762 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

Activity of aaptamine and two derivatives, demethyloxyaaptamine and isoaaptamine, in cisplatin-resistant germ cell cancer.J Proteomics. 2014 Jan 16;96:223-39.