

8-Bromoadenine

Chemical Properties

CAS No. :	6974-78-3
Formula:	C ₅ H ₄ BrN ₅
Molecular Weight:	214.02
Storage:	Keep away from direct sunlight, Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

Biological Description

Description	8-Bromoadenine (8-Bromo-9H-purin-6-amine) functions as a radiosensitizer for DNA and inhibits the repair of single-strand DNA breaks within cells. 8-Bromoadenine is a brominated adenine derivative that can be utilized for the production of radioactive adenine through bromine replacement with deuterium. 8-Bromoadenine is therefore applicable to investigations involving DNA damage responses, radiobiology, nucleobase chemistry, and isotope-labeling methodologies.
Targets(IC50)	DNA/RNA Synthesis
In vitro	8-Bromoadenine (0.1 mM, 30-90 min) inhibits DNA single-strand break repair in HeLa-M cell monolayer cultures and results in the synthesis of lower-quality DNA following γ -irradiation compared with cells cultured without purine supplementation[1].

Solubility Information

Solubility	NaOH: < 1 mg/mL (insoluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.6725 mL	23.3623 mL	46.7246 mL
5 mM	0.9345 mL	4.6725 mL	9.3449 mL
10 mM	0.4672 mL	2.3362 mL	4.6725 mL
50 mM	0.0934 mL	0.4672 mL	0.9345 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

Tkalich AV, et al. Vliianie 8-bromadenina na reparatsiiu DNK [Effect of 8-bromoadenine on DNA repair]. Tsitologiya. 1980 Aug;22(8):994-7. Russian.

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