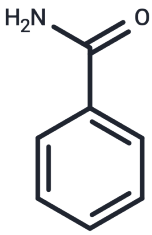
Data Sheet (Cat.No.T6780)

TargetMol

Benzamide

Chemical Properties



CAS No. : 55-21-0

Formula: C7H7NO

Molecular Weight: 121.14

Appearance: Solid

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Benzamide (Amid kyseliny benzoove), an inhibitor of poly(ADP-ribose) polymerase, is a derivative of benzoic acid.
Targets(IC50)	Endogenous Metabolite,PARP
In vitro	Benzamide, an inhibitor of PARP is protective against excitatory amino acid-induced cell death in primary cultures of neurons derived from neonatal rat brain. In addition, benzamide has more recently been shown to partially prevent the loss of dopaminergic cells and the increase in reactive gliosis caused by METH in vitro in fetal rat mesencephalic cells in culture[1]. Benzamide prevents transformation in a cell cycle-specific manner, maximal prevention coinciding with early S phase, also characteristic of maximal susceptibility to transformation[2].
In vivo	PARP inhibitor benzamide is neuroprotective in C57Bl/6N mice against different types of neurotoxicities and without affecting body temperature[2]. Benzamide treatment significantly decreases the iNOS expression and number of apoptotic neurons and thereby improves the neuronal survival and memory during GCI. Benzamide administration (160 mg/kg i.p.) does not induce hypothermia and reaches the CNS in 30 min in the concentration range of 0.09-0.64 mM, at which, it shows neuroprotection[3].
Cell Research	Exposure to carcinogens and benzamide is done 10 hr after the release of the metabolically induced G1/S block and exposure lasts 10 hr, followed by three washings and refeeding with fresh media. (Only for Reference)

Solubility Information

Solubility	DMSO: 45 mg/mL (371.47 mM),Sonication is recommended. Ethanol: 23 mg/mL (189.86 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	8.2549 mL	41.2746 mL	82.5491 mL
5 mM	1.651 mL	8.2549 mL	16.5098 mL
10 mM	0.8255 mL	4.1275 mL	8.2549 mL
50 mM	0.1651 mL	0.8255 mL	1.651 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.

Reference

Cosi C, et al. Brain Res. 1996, 735(2):343-8.
Kun E, et al. Proc Natl Acad Sci U S A. 1983, 80(23):7219-23.
Kumaran D, et al. Behav Brain Res. 2008, 192(2):178-84.
Rankin PW, et al. J Biol Chem. 1989, 264(8):4312-7.