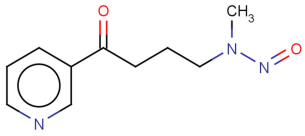
Data Sheet (Cat.No.T20533)

TargetMol
A DRUG SCREENING EXPERT

NNK

Chemical Properties



CAS No.:	64091-91-4
Formula:	C10H13N3O2
Molecular Weight:	207.23
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	NNK is a procarcinogen and a major tobacco-specific toxicant. It inhibits the expression of lysyl oxidase which is a tumor suppressor.

Solubility Information

Solubility	DMSO: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.826 mL	24.128 mL	48.256 mL
5 mM	0.965 mL	4.826 mL	9.651 mL
10 mM	0.483 mL	2.413 mL	4.826 mL
50 mM	0.097 mL	0.483 mL	0.965 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Cheng G, Li J, Zheng M, Zhao Y, Zhou J, Li W. NNK, a tobacco-specific carcinogen, inhibits the expression of lysyl oxidase, a tumor suppressor. Int J Environ Res Public Health. 2014 Dec 23;12(1):64-82. doi: 10.3390/ijerph120100064. PubMed PMID: 25546273; PubMed Central PMCID: PMC4306850.

2. Tong M, Yu R, Deochand C, de la Monte SM. Differential Contributions of Alcohol and the Nicotine-Derived Nitrosamine Ketone (NNK) to Insulin and Insulin-Like Growth Factor Resistance in the Adolescent Rat Brain. Alcohol Alcohol. 2015 Nov;50(6):670-9. doi: 10.1093/alcalc/agv101. Epub 2015 Sep 15. PubMed PMID: 26373814; PubMed Central PMCID: PMC4608623.

3. Wu Q, Nadesalingam J, Moodley S, Bai X, Liu M. XB130 translocation to microfilamentous structures mediates NNK-induced migration of human bronchial epithelial cells. Oncotarget. 2015 Jul 20;6(20):18050-65. PubMed PMID: 25980441; PubMed Central PMCID: PMC4627235.

4. Tong M, Yu R, Silbermann E, Zabala V, Deochand C, de la Monte SM. Differential Contributions of Alcohol and Nicotine-Derived Nitrosamine Ketone (NNK) to White Matter Pathology in the Adolescent Rat Brain. Alcohol Alcohol. 2015 Nov;50(6):680-9. doi: 10.1093/alcalc/agv102. Epub 2015 Sep 15. PubMed PMID: 26373813; PubMed Central PMCID: PMC4608624.

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