

Ro 08-2750

## Chemical Properties

CAS No. : 37854-59-4

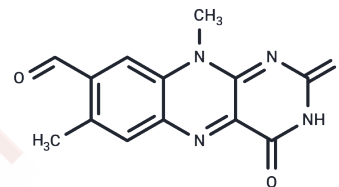
Formula: C<sub>13</sub>H<sub>10</sub>N<sub>4</sub>O<sub>3</sub>

Molecular Weight: 270.24

Store at low temperature

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	Ro 08-2750 is a non-peptide, reversible nerve growth factor (NGF) inhibitor that binds to NGF with an IC <sub>50</sub> of approximately 1 μM. It is also a selective MSI RNA-binding activity inhibitor, exhibiting an IC <sub>50</sub> of 2.7 μM. Additionally, Ro 08-2750 selectively inhibits NGF binding to p75NTR over TRKA.
Targets(IC50)	Apoptosis,Others
In vitro	Ro 08-2750 inhibits the survival of human AML lines and patient cells. Ro 08-2750 suppresses MSI2 RNA-binding and alters the MSI2 gene signature. Ro 08-2750 binds to the NGF dimer thereby probably inducing a change in its conformation such that NGF cannot bind to p75NTR anymore. Ro 08-2750 (5-10 μM; 8hours) increases differentiation and apoptosis in myeloid leukemia cells. Ro 08-2750 (10 nM) fully rescues cells from undergoing NGF-induced SK-N-MC 103 cell death [2][3].
In vivo	In a myeloid leukemia model in vivo, Ro 08-2750 (13.75mg/kg; i.p.) suppresses leukemogenesis [3].

## Solubility Information

Solubility	DMSO: 4 mg/mL (14.8 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 0.4 mg/mL (1.48 mM),Solution. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	3.7004 mL	18.5021 mL	37.0041 mL
5 mM	0.7401 mL	3.7004 mL	7.4008 mL
10 mM	0.370 mL	1.8502 mL	3.7004 mL
50 mM	0.074 mL	0.370 mL	0.7401 mL

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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

Arkin MR, et al. Small-molecule inhibitors of protein-protein interactions: progressing towards the dream. *Nat Rev Drug Discov.* 2004 Apr;3(4):301-17.

Niederhauser O, et al. NGF ligand alters NGF signaling via p75(NTR) and trkA. *J Neurosci Res.* 2000 Aug 1;61(3):263-72.

Minuesa G, et al. Small-molecule targeting of MUSASHI RNA-binding activity in acute myeloid leukemia. *Nat Commun.* 2019 Jun 19;10(1):2691.

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