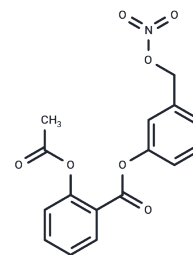


Nitroaspirin

Chemical Properties

CAS No. :	175033-36-0
Formula:	C ₁₆ H ₁₃ N ₃ O ₇
Molecular Weight:	331.28
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	Nitroaspirin (NCX 4016) is a nitric oxide donor and a nitro-derivative of Aspirin that inhibits cyclooxygenase. It induces cell cycle arrest and apoptosis in Cisplatin-resistant human ovarian cancer cells by down-regulating EGFR/PI3K/STAT3 signaling and modulating Bcl-2 family proteins. Additionally, Nitroaspirin possesses antithrombotic and antiplatelet properties and acts as a direct and irreversible inhibitor of COX-1.
Targets(IC50)	Apoptosis,COX

Solubility Information

Solubility	DMSO: 55 mg/mL (166.02 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 5 mg/mL (15.09 mM),Sonication is recommended. <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

	1mg	5mg	10mg
1 mM	3.0186 mL	15.093 mL	30.1859 mL
5 mM	0.6037 mL	3.0186 mL	6.0372 mL
10 mM	0.3019 mL	1.5093 mL	3.0186 mL
50 mM	0.0604 mL	0.3019 mL	0.6037 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

- Bertuglia S, et al. Antioxidant activity of nitro derivative of aspirin against ischemia-reperfusion in hamster cheekpouch microcirculation. *Am J Physiol Gastrointest Liver Physiol.* 2004 Mar;286(3):G437-43.
- Corazzi T, et al. Direct and irreversible inhibition of cyclooxygenase-1 by nitroaspirin (NCX 4016). *J Pharmacol Exp Ther.* 2005 Dec;315(3):1331-7.
- Selvendiran K, et al. NCX-4016, a nitro-derivative of aspirin, inhibits EGFR and STAT3 signaling and modulates Bcl-2 proteins in cisplatin-resistant human ovarian cancer cells and xenografts. *Cell Cycle.* 2008 Jan 1;7(1):81-8.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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