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## Product Data Sheet

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Product Name: Nitroaspirin

Cat. No.: GC36747

### Chemical Properties

Cas. No. 175033-36-0

SMILES O=C(OC1=CC=CC(CO[N+])([O-])=O)=C1)C2=CC=CC=C2OC(C)=OFormula C<sub>16</sub>H<sub>13</sub>NO<sub>7</sub> M.Wt 331.28

Solubility Soluble in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure 

### Background

Nitroaspirin (NCX 4016) is a nitric oxide (NO) donor and a nitro-derivative of Aspirin, which combines with Nitroaspirin to inhibit cyclooxygenase. Nitroaspirin (NCX 4016) has antithrombotic and anti-platelet properties and acts as a direct and irreversible inhibitor of COX-1. Nitroaspirin (NCX 4016) causes significant induction of cell cycle arrest and apoptosis in Cisplatin-resistant human ovarian cancer cells via down-regulation of EGFR/PI3K/STAT3 signaling and modulation of Bcl-2 family proteins[1][2][3][4]. COX-1

[1]. 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. [2]. 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. [3]. 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. [4]. 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.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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