# Data Sheet (Cat.No.T24542)

TargetMol

NP-313

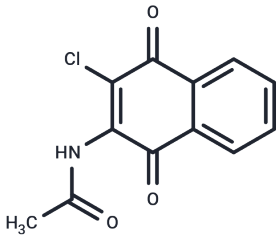
## Chemical Properties

CAS No. : 5397-78-4

Formula: C12H8ClNO3

Molecular Weight: 249.65

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 | NP-313 (NSC-4264) is a potent antithrombotic agent that inhibits platelet aggregation and activation by inhibiting thromboxane A 2 synthesis and selectively inhibiting SOCC-mediated Ca2+ efflux. |
| Targets(IC50) | Calcium Channel,Thrombin |
| In vitro | NP-313 (0-80 μM) inhibits platelet aggregation in a dose-dependent manner, reducing thrombin- and A23187-induced aggregation by up to 80% and 60%, respectively.[1] At concentrations of 0-8 μM, NP-313 concentration-dependently inhibits P-selectin expression and collagen- or thrombin-induced thromboxane B2 (TXB2) production in human platelets, and inhibits COX-1 and TXA2 synthase with IC50 values of 1.5 and 3.9 μM, respectively.[1] |
| In vivo | NP-313 (4-16 μg/g; i.v.) significantly prolongs time-to-occlusion (TTO), prolongs bleeding time, and inhibits platelet aggregation induced by collagen (10 μg/mL) in male ICR mice.[1] |

## Solubility Information

| | |
|---|---|
| Solubility | DMSO: 60 mg/mL (240.34 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 4.0056 mL | 20.028 mL | 40.0561 mL |
| 5 mM | 0.8011 mL | 4.0056 mL | 8.0112 mL |
| 10 mM | 0.4006 mL | 2.0028 mL | 4.0056 mL |
| 50 mM | 0.0801 mL | 0.4006 mL | 0.8011 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

Gornostaev L M, et al. On the Reaction of 2-Benzylamino-1, 4-naphthoquinones with Nitrosylsulfuric Acid. Russian Journal of Organic Chemistry. 2019;55: 608-614.

Kuo HL, et al. NP-313, 2-acetylamino-3-chloro-1,4-naphthoquinone, a novel antithrombotic agent with dual inhibition of thromboxane A(2) synthesis and calcium entry. Br J Pharmacol. 2011 Apr;162(8):1871-83.