

ES 936

## Chemical Properties

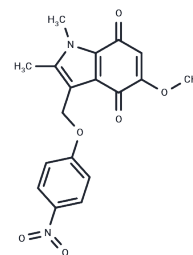
CAS No. : 192820-78-3

Formula: C<sub>18</sub>H<sub>16</sub>N<sub>2</sub>O<sub>6</sub>

Molecular Weight: 356.33

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	ES 936 is a potent and selective NQO1 inhibitor, inhibiting more than 95% of NQO1 activity within 30 minutes at a concentration of 100 nM, with a cell line-dependent inhibition duration resulting in a small number of DNA strand breaks.
Targets(IC50)	Others,NF-κB,Reductase,NADPH
In vitro	ES 936 exhibited relatively low cytotoxicity toward MDA468 NQ-16 (high NQO1 activity) and HCT116 (low NQO1 activity) cells, with IC <sub>50</sub> values of 732 ± 49 nM and 569 ± 48 nM, respectively. These concentrations are approximately 8–20 times higher than those required for effective NQO1 inhibition, indicating weak intrinsic growth-inhibitory activity.[1] In co-treatment experiments, ES 936 pretreatment significantly increased the IC <sub>50</sub> of streptonigrin, from 2.2 ± 0.06 nM to 13 ± 0.4 nM in MDA468 NQ-16 cells (approximately 6-fold), and from 6.7 ± 1 nM to 11 ± 0.6 nM in HCT116 cells (approximately 2-fold). These results indicate that ES 936 reduces the bioactivation and cytotoxicity of streptonigrin by inhibiting NQO1 activity.[1]

## Solubility Information

Solubility	DMSO: 1 mg/mL (2.81 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.8064 mL	14.0319 mL	28.0639 mL
5 mM	0.5613 mL	2.8064 mL	5.6128 mL
10 mM	0.2806 mL	1.4032 mL	2.8064 mL
50 mM	0.0561 mL	0.2806 mL	0.5613 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

Dehn DL, Siegel D, Swann E, Moody CJ, Ross D. Biochemical, cytotoxic, and genotoxic effects of ES936, a mechanism-based inhibitor of NAD(P)H:quinone oxidoreductase 1, in cellular systems. Mol Pharmacol. 2003 Sep; 64(3):714-20.

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