

## Cicaprost

## Chemical Properties

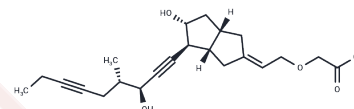
CAS No. : 94079-80-8

Formula: C<sub>22</sub>H<sub>30</sub>O<sub>5</sub>

Molecular Weight: 374.47

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	Cicaprost (ZK 96480) is a potent prostacyclin receptor (IP) agonist, inducing artery relaxation through concentration-dependent mechanisms with an EC <sub>50</sub> value of 5.8 nM [1].
Targets(IC <sub>50</sub> )	Others, Prostaglandin Receptor
In vitro	Cicaprost significantly inhibits the proliferation of human pulmonary artery smooth muscle cells (HPASMC) that is induced by fetal bovine serum (FBS), exhibiting considerable antiproliferative effects at a concentration of 30 nM [2]. Additionally, it promotes the production of [ <sup>3</sup> H]cyclic AMP and [ <sup>3</sup> H]inositol phosphate, with half-maximal effective concentration (EC <sub>50</sub> ) values ranging from 1.5 to 22 nM for the former and 49 to 457 nM for the latter, excluding effects on SK-N-SH cells [3]. In a Cell Proliferation Assay [2] using HPASMC, across a range of concentrations from 10 pM to 10 μM, Cicaprost displayed a dose-dependent reduction in cell proliferation, achieving an EC <sub>50</sub> of 24.1 nM.
In vivo	Cicaprost modifies pain perception and inflammatory responses by targeting the prostacyclin receptor; its absence in mice does not alter these effects. Specifically, intravenous administration of Cicaprost at a dosage of 1 μg/kg induces a significant decrease in blood pressure (approximately 30 mm Hg) in anesthetized wild-type mice. However, this hypotensive response is absent in IP-deficient mice, even when the dosage is increased to 10 μg/kg. This differential effect underscores the role of the prostacyclin receptor in mediating Cicaprost's cardiovascular activity.

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.6704 mL	13.3522 mL	26.7044 mL
5 mM	0.5341 mL	2.6704 mL	5.3409 mL
10 mM	0.267 mL	1.3352 mL	2.6704 mL
50 mM	0.0534 mL	0.267 mL	0.5341 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.

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