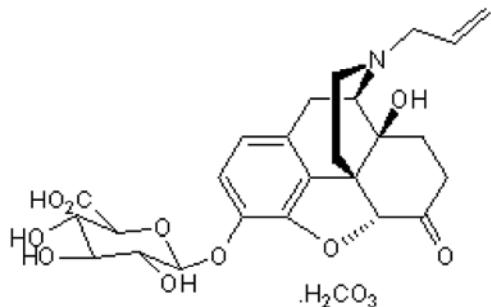


**Certificate of Analysis**[www.tocris.com](http://www.tocris.com)**Product Name:** Naloxone 3-glucuronide carbonic acid salt**Catalog No.:** 5684**Batch No.:** 1IUPAC Name: (5 $\alpha$ )-4,5-Epoxy-14-hydroxy-6-oxo-17-(2-propenyl)morphinan-3-yl  $\beta$ -D-glucopyranosiduronic acid carbonic acid salt**1. PHYSICAL AND CHEMICAL PROPERTIES****Batch Molecular Formula:** C<sub>25</sub>H<sub>29</sub>NO<sub>10</sub>.H<sub>2</sub>CO<sub>3</sub>.1½H<sub>2</sub>O**Batch Molecular Weight:** 592.54**Physical Appearance:** White solid**Solubility:** water to 100 mM  
DMSO to 100 mM**Storage:** Store at -20°C**Batch Molecular Structure:****2. ANALYTICAL DATA****HPLC:** Shows 99.4% purity**<sup>1</sup>H NMR:** Consistent with structure**Mass Spectrum:** Consistent with structure**Microanalysis:** Carbon Hydrogen Nitrogen

Theoretical 52.7 5.78 2.36

Found 52.5 5.64 2.61

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

## Product Information

[www.tocris.com](http://www.tocris.com)

**Product Name:** Naloxone 3-glucuronide carbonic acid salt

**Catalog No.:** 5684

**Batch No.:** 1

**IUPAC Name:** (5 $\alpha$ )-4,5-Epoxy-14-hydroxy-6-oxo-17-(2-propenyl)morphinan-3-yl  $\beta$ -D-glucopyranosiduronic acid carbonic acid salt

### Description:

Naloxone conjugate. Following oral administration induces delayed diarrhea, as well as milder and delayed withdrawal behavior and tail skin temperature (TST) response compared with naloxone in morphine-dependent rats.

### Physical and Chemical Properties:

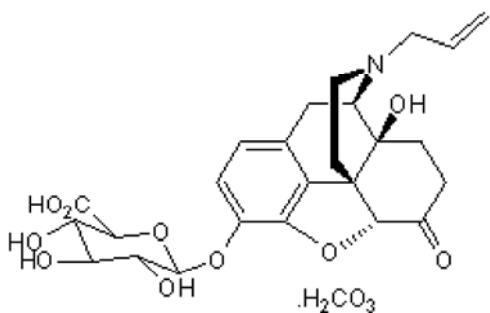
Batch Molecular Formula: C<sub>25</sub>H<sub>29</sub>NO<sub>10</sub>.H<sub>2</sub>CO<sub>3</sub>.1/2H<sub>2</sub>O

Batch Molecular Weight: 592.54

Physical Appearance: White solid

**Minimum Purity:**  $\geq$ 98%

### Batch Molecular Structure:



**Storage:** Store at -20°C

### Solubility & Usage Info:

water to 100 mM

DMSO to 100 mM

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

### Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

### References:

**Simpkins et al** (1988) Evidence for the delivery of narcotic antagonists to the colon as their glucuronide conjugates. *J.Pharmacol.Exp.Ther.* **244** 195. PMID: 3335997.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

[www.tocris.com/distributors](http://www.tocris.com/distributors)

Tel: +1 612 379 2956