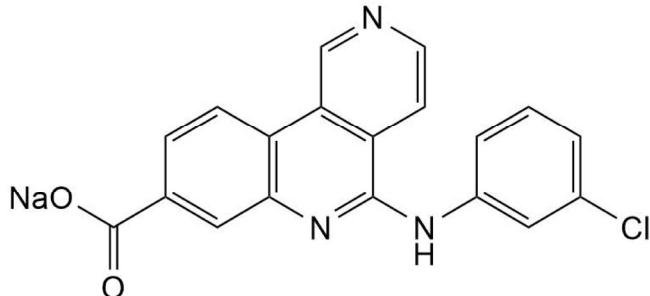


**Certificate of Analysis**[www.tocris.com](http://www.tocris.com)**Product Name:** CX-4945**Catalog No.:** 8993**Batch No.:** 1

CAS Number: 1309357-15-0

IUPAC Name: Sodium 5-[(3-Chlorophenyl)amino]benzo[c]-2,6-naphthyridine-8-carboxylate

**1. PHYSICAL AND CHEMICAL PROPERTIES****Batch Molecular Formula:** C<sub>19</sub>H<sub>11</sub>CIN<sub>3</sub>O<sub>2</sub>Na.2H<sub>2</sub>O**Batch Molecular Weight:** 407.79**Physical Appearance:** Pale yellow 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 55.96 3.71 10.3

Found 55.25 3.49 9.98

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

## Product Information

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

**Product Name:** CX-4945

**Catalog No.:** 8993

**Batch No.:** 1

**CAS Number:** 1309357-15-0

**IUPAC Name:** Sodium 5-[(3-Chlorophenyl)amino]benzo[c]-2,6-naphthyridine-8-carboxylate

### Description:

CX-4945 (Silmitasertib) is a potent and selective inhibitor of protein kinase CK2 $\alpha$  and CK2 $\alpha'$  (IC<sub>50</sub> = 1 nM). It shows greater than 500-fold selectivity for CK2 over a panel of > 200 kinases. CX-4945 can be used, in combination with other small molecules, in fast chemical reprogramming protocols for the induction of human somatic cells and highly efficient generation of pluripotent stem cells (hCiPS) in a minimum of 16 days with robust repeatability and reliability. CX-4945 has antiproliferative effects in vitro as it attenuates PI3K/Akt signalling, causes cell-cycle arrest and selectively induces apoptosis in cancer cells. In ... Please see product specific page on [www.tocris.com](http://www.tocris.com) for full description.

### Physical and Chemical Properties:

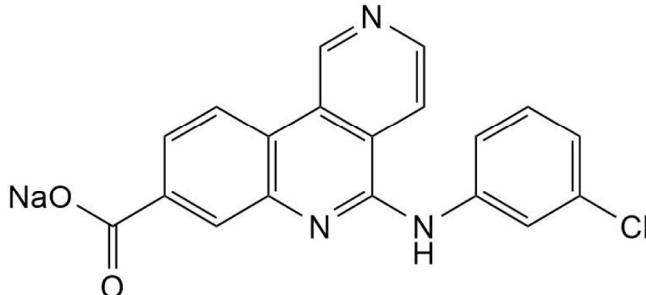
Batch Molecular Formula: C<sub>19</sub>H<sub>11</sub>ClN<sub>3</sub>O<sub>2</sub>Na·2H<sub>2</sub>O

Batch Molecular Weight: 407.79

Physical Appearance: Pale yellow solid

**Minimum Purity:** ≥98%

### Batch Molecular Structure:



### References:

**Wang et al** (2025) A rapid chemical reprogramming system to generate human pluripotent stem cells. *Nat.Chem.Biol.* **21** 1030. PMID: 39753706.

**Liuyang et al** (2023) Highly efficient and rapid generation of human pluripotent stem cells by chemical reprogramming. *Cell Stem Cell* **30** 450. PMID: 36944335.

**Siddiqui-Jain et al** (2010) CX-4945, an orally bioavailable selective inhibitor of protein kinase CK2, inhibits prosurvival and angiogenic signaling and exhibits antitumor efficacy. *Cancer Res.* **70** 10288. PMID: 21159648.

**Storage:** Store at -20°C

**CAUTION** - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

### Solubility & Usage Info:

water to 100 mM

DMSO to 100 mM

### 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. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**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.

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

**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