Web: www.taiclone.com
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# Silmitasertib (CX-4945)

## Catalog No: tcsc0563

### Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 50mg

**Size:** 100mg

### Specifications

**CAS No:**
1009820-21-6

**Formula:**
$C_{19}H_{12}ClN_3O_2$

**Pathway:**
Autophagy;Stem Cell/Wnt;Cell Cycle/DNA Damage

**Target:**
Autophagy;Casein Kinase;Casein Kinase

**Purity / Grade:**
>98%

**Solubility:**
DMSO : ≥ 35 mg/mL (100.07 mM)

**Alternative Names:**
CX-4945

**Observed Molecular Weight:**
349.77

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## Product Description

Silmitasertib (CX-4945) is a potent, selective and oral **casein kinase 2 (CK2)** inhibitor with a **$K_i$** of 0.38 nM.

IC50 & Target: IC50: 1 nM (CK2α), 1 nM (CK2α\')[1]

***In Vitro:*** Silmitasertib (CX-4945) causes cell-cycle arrest and selectively induces apoptosis in cancer cells relative to normal cells, attenuates PI3K/Akt signalingand, and the antiproliferative activity of Silmitasertib (CX-4945) is correlated with expression levels of the CK2α catalytic subunit, Attenuation of PI3K/Akt signaling[1]. Silmitasertib (CX-4945) with bortezomib treatment prevents leukemic cells from engaging a functional UPR in order to buffer the bortezomib-mediated proteotoxic stress in ER lumen, and decreases pro-survival ER chaperon BIP/Grp78 expression[2]. Silmitasertib (CX-4945) induces cytotoxicity and apoptosis, and exerts anti-proliferative effects in hematological tumors by downregulating CK2 expression and suppressing activation of CK2-mediated PI3K/Akt/mTOR signaling pathways[3].

***In Vivo:*** Silmitasertib (CX-4945) (25 or 75 mg/kg, p.o.) is well tolerated and demonstrated robust antitumor activity with concomitant reductions of the mechanism-based biomarker phospho-p21 (T145) in murine xenograft models[1].