Web: www.taiclone.com
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# RKI-1447

## Catalog No: tcsc1632

### Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 50mg

**Size:** 100mg

### Specifications

**CAS No:**
1342278-01-6

**Formula:**
$C_{16}H_{14}N_4O_2S$

**Pathway:**
TGF-beta/Smad;Stem Cell/Wnt;Cell Cycle/DNA Damage

**Target:**
ROCK;ROCK;ROCK

**Purity / Grade:**
>98%

**Solubility:**
10 mM in DMSO

**Observed Molecular Weight:**
326.37

## Product Description

RKI-1447 is a potent small molecule inhibitor of **ROCK1** and **ROCK2** with **$IC_{50}$** values of 14.5 nM and 6.2 nM, respectively.

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IC50 & Target: IC50: 14.5 nM (ROCK1), 6.2 nM(ROCK2)[1]

***In Vitro:*** RKI-1447 is a Type I kinase inhibitor that binds the ATP binding site through interactions with the hinge region and the DFG motif. RKI-1447 suppresses phosphorylation of the ROCK substrates mLC-2 and MYPT-1 in human cancer cells, but has no effect on the phosphorylation levels of the AKT, MEK and S6 kinase at concentrations as high as 10 μM. RKI-1447 is also highly selective at inhibiting ROCK-mediated cytoskeleton re-organization. RKI-1447 inhibits migration, invasion and anchorage-independent tumor growth of breast cancer cells[1].

***In Vivo:*** RKI-1447 is highly effective at inhibiting the outgrowth of mammary tumors in a transgenic mouse model. RKI-1447 inhibits mammary tumor growth by 87% and on average the mammary tumors from RKI-1447 treated mice are 7.7 fold smaller compared to those tumors from mice treated with the vehicle control[1].