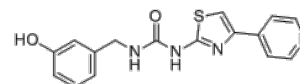


**Product Name** : RKI-1447  
**Cat. No.** : PC-38732  
**CAS No.** : 1342278-01-6  
**Molecular Formula** : C<sub>16</sub>H<sub>14</sub>N<sub>4</sub>O<sub>2</sub>S  
**Molecular Weight** : 326.374  
**Target** : ROCK  
**Solubility** : 10 mM in DMSO



## Biological Activity

RKI-1447 is a potent small molecule inhibitor of **ROCK1** and **ROCK2** with IC<sub>50</sub> of 14.5 nM and 6.2 nM, respectively, suppresses phosphorylation of the ROCK substrates MLC-2 and MYPT-1 in human cancer cells.

RKI-1447 binds the ATP binding site through interactions with the hinge region and the DFG motif.

RKI-1447 shows no effect on the phosphorylation levels of the AKT, MEK, and S6 kinase.

RKI-1447 inhibited migration, invasion and anchorage-independent tumor growth of breast cancer cells (MDA-MB-231 cells, IC<sub>50</sub>=709 nM).

RKI-1447 is highly effective at inhibiting the outgrowth of mammary tumors in a transgenic mouse model.

## References

Patel RA, et al. *Cancer Res.* 2012 Oct 1;72(19):5025-34.

Pireddu R, et al. *Med Chem Commun.* 2012;3(6):699-709.

**Caution: Product has not been fully validated for medical applications. Lab Use Only!**

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