

# ESI-09

Catalog No: tcsc3420



## Available Sizes

Size: 5mg

Size: 10mg



## Specifications

### CAS No:

263707-16-0

### Formula:

$C_{16}H_{15}ClN_4O_2$

### Pathway:

Others

### Target:

Others

### Purity / Grade:

>98%

### Solubility:

DMSO :  $\geq 47$  mg/mL (142.09 mM)

### Observed Molecular Weight:

330.77

## Product Description

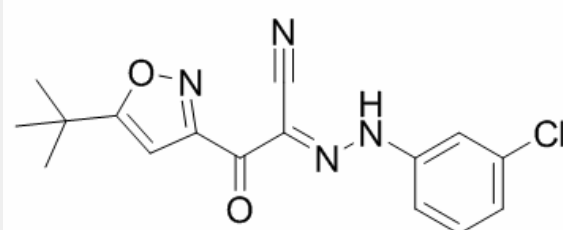
ESI-09 is a novel noncyclic nucleotide **EPAC** antagonist with **IC<sub>50</sub>** values of 3.2 and 1.4  $\mu$ M for EPAC1 and EPAC2, respectively.

IC50 & Target: IC50: 3.2  $\mu$ M (EPAC1), 1.4  $\mu$ M (EPAC2)<sup>[1]</sup>

**In Vitro:** While cAMP competes with 8-NBD-cAMP binding with an IC<sub>50</sub> of 39  $\mu$ M, ESI-09 shows an increased potency with an apparent IC<sub>50</sub> of 10  $\mu$ M. ESI-09 inhibits cAMP-mediated EPAC2 and EPAC1 GEF activity with an IC<sub>50</sub> of 1.4 and 3.2  $\mu$ M, respectively. ESI-

09 could fit well into the functional cAMP-binding pocket of EPAC1, establishing favorable hydrophobic and hydrogen bonding interactions with the protein's active-site residues. ESI-09 inhibits 007-AM-stimulated Akt phosphorylation at T308 and S473 in a dose-dependent manner. ESI-09 inhibits pancreatic cancer cells AsPC-1 and PANC-1 migration. ESI-09 inhibits EPAC1-mediated adhesion of PDA cells on collagen I<sup>[1]</sup>. Exposure to ESI-09 significantly reduces intracellular and total bacterial counts in HUVECs at 30 min postinfection with 10 multiplicities of infection (MOI) of *R. australis* compared with similarly infected controls<sup>[2]</sup>.

***In Vivo:*** Treatment with ESI-09 dramatically protects WT mice against *R. australis* infection with much milder disease manifestations and significantly improves survival<sup>[2]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!