
Product Data Sheet

Product Name: Nec-4
Cat. No.: GC33620

Chemical Properties

Cas. No. 1041644-43-2

SMILES C[C@@H](C1=C(C=CC=C1Cl)F)NC(C2=CC=C(N2C)C#N)=O

Formula $C_{15}H_{13}ClFN_3O$ M.Wt 305.73

Solubility Soluble in DMSO Storage Store at $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure

Background

Nec-4, a tricyclic derivative, is a potent receptor interacting protein 1 (RIP1) inhibitor, with an IC_{50} of $2.6 \mu M$, K_i of $0.46 \mu M$.

Nec-4 (compound 9) is a slightly better competitor than 7 with a lower K_i value that is similar to R-3. Nec-4 is again a slightly better competitor than Rac-3 with K_i and IC_{50} values comparable to 7 (Nec-4: $IC_{50}=2.6\pm 0.1 \mu M$, $K_i=0.46\pm 0.05 \mu M$; 7: $IC_{50}=10.7\pm 1.8 \mu M$, $K_i=4.5\pm 0.9 \mu M$). Overall, all three compounds cross-compete with each other but Nec-4 is able to more effectively displace both 20 and 26 in comparison to the parent compounds Rac-3 and 7, respectively. This suggests that Nec-4 binding likely significantly overlaps with both the Nec-1 and the Nec-3 binding sites.

[1]. Maki JL, et al. Fluorescence polarization assay for inhibitors of the kinase domain of receptor interacting protein 1. *Anal Biochem.* 2012 Aug 15;427(2):164-74.

Caution: Product has not been fully validated for medical applications. For research use only.

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