## **Product** Data Sheet

## Nec-4

Molecular Weight: 305.73

Target: RIP kinase

Pathway: Apoptosis

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

## **BIOLOGICAL ACTIVITY**

Description	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.
IC <sub>50</sub> & Target	IC50: $2.6~\mu\text{M}~(\text{RIP1})^{[1]}.$
In Vitro	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 <sub>50</sub> values comparable to 7 (Nec-4: IC <sub>50</sub> =2.6±0.1 $\mu$ M, $K_i$ =0.46±0.05 $\mu$ M; 7: IC <sub>50</sub> =10.7±1.8 $\mu$ M, $K_i$ =4.5±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.  MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## **REFERENCES**

[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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