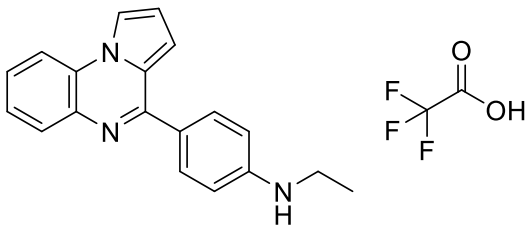


Product data sheet



MedKoo Cat#: 525590 Name: RI(dl)-2 TFA CAS#: 2140803-88-7 (TFA) Chemical Formula: C ₂₁ H ₁₈ F ₃ N ₃ O ₂ Molecular Weight: 401.39	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:

RI(dl)-2 is a selective inhibitor of Rad51-mediated D-loop formation.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
To be determined	To be determined	To be determined

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.49 mL	12.46 mL	24.91 mL
5 mM	0.50 mL	2.49 mL	4.98 mL
10 mM	0.25 mL	1.25 mL	2.49 mL
50 mM	0.05 mL	0.25 mL	0.50 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

- Budke B, Tueckmantel W, Miles K, Kozikowski AP, Connell PP. Optimization of Drug Candidates That Inhibit the D-Loop Activity of RAD51. *ChemMedChem*. 2019 May 17;14(10):1031-1040. doi: 10.1002/cmdc.201900075. Epub 2019 Apr 17. PMID: 30957434; PMCID: PMC6525040.
- Lv W, Budke B, Pawlowski M, Connell PP, Kozikowski AP. Development of Small Molecules that Specifically Inhibit the D-loop Activity of RAD51. *J Med Chem*. 2016 May 26;59(10):4511-25. doi: 10.1021/acs.jmedchem.5b01762. Epub 2016 Apr 21. PMID: 27049177; PMCID: PMC5473336.

In vivo study

To be determined

7. Bioactivity

Biological target:

RI(dl)-2 is a cell-permeable pyrroloquinoline derivative that selectively inhibits Rad51-mediated D-loop formation (IC₅₀ = 11.1 μM) without affecting its ssDNA-binding activity (IC₅₀ >100 μM). RI(dl)-2 inhibits DSBs-induced cellular homologous recombination (HR) activity (IC₅₀ = 3.0 μM by HEK293-based DR-GFP reporter assay) by stabilizing nucleoprotein filaments in a nonfunctional state without affecting DNA damage-induced RAD51 nuclear foci formation or stimulating single-strand annealing (SSA) activity.

Product data sheet



In vitro activity

This study developed a sensitive assay to measure dsDNA intercalation and identified two analogues of RI(dl)-2 that promote complete homologous recombination inhibition in cells while exerting minimal intercalation activity.

Reference: ChemMedChem. 2019 May 17;14(10):1031-1040. <https://pubmed.ncbi.nlm.nih.gov/30957434/>

In vivo activity

To be determined

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.