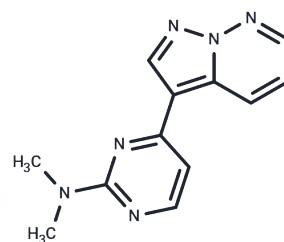


DYRK1-IN-1

Chemical Properties

| | |
|-------------------|---|
| CAS No. : | 2814486-79-6 |
| Formula: | C ₁₂ H ₁₂ N ₆ |
| Molecular Weight: | 240.26 |
| Storage: | Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA. |



Biological Description

| | |
|----------------------------|--|
| Description | DYRK1-IN-1 is a highly selective and ligand-efficient DYRK1A inhibitor that inhibits DYRK1A phosphorylation activity with an IC ₅₀ value of 220 nM. It exhibits good permeability and cellular activity without P-glycoprotein liability, making it suitable for research on central nervous system penetrant DYRK1A chemical probes [1]. |
| Targets(IC ₅₀) | Others,DYRK |
| In vitro | DYRK1-IN-1 is a potent inhibitor of DYRK1A phosphorylation, achieving inhibition with an IC ₅₀ value of 220 nM and demonstrating an ability to inhibit tau phosphorylation at an IC ₅₀ of 0.59 μM. This compound exhibits good permeability and cellular activity, devoid of P-glycoprotein liability. It also possesses excellent physicochemical characteristics, including high enzymatic potency, favorable aqueous solubility, outstanding kinome selectivity, and robust on-target in vitro inhibition efficacy. In HEK293 cells, DYRK1-IN-1 shows satisfactory cellular activity with an IC ₅₀ of 434 nM, in comparison to an enzymatic IC ₅₀ of 75 nM. |
| In vivo | DYRK1-IN-1 (1 mg/kg; i.v.) exhibits high clearance in Sprague Dawley rats during pharmacokinetic analysis. |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|------------|
| 1 mM | 4.1622 mL | 20.8108 mL | 41.6216 mL |
| 5 mM | 0.8324 mL | 4.1622 mL | 8.3243 mL |
| 10 mM | 0.4162 mL | 2.0811 mL | 4.1622 mL |
| 50 mM | 0.0832 mL | 0.4162 mL | 0.8324 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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