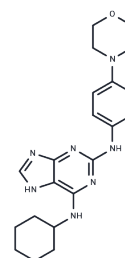


## Reversine

### Chemical Properties

|                   |                                                          |
|-------------------|----------------------------------------------------------|
| CAS No. :         | 656820-32-5                                              |
| Formula:          | C <sub>21</sub> H <sub>27</sub> N <sub>7</sub> O         |
| Molecular Weight: | 393.49                                                   |
| Appearance:       | no data available                                        |
| Storage:          | Powder: -20°C for 3 years   In solvent: -80°C for 1 year |



### Biological Description

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description                | Reversine, a small synthetic purine analogue (2, 6-disubstituted purine), is a potent inhibitor of Aurora A/B/C (IC <sub>50</sub> s=150-500 nM).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Targets(IC <sub>50</sub> ) | Aurora Kinase, Adenosine Receptor, Autophagy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| In vitro                   | In mice carrying U14 tumors, intraperitoneal injection of Reversine (10 mg/kg) effectively reduces tumor cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| In vivo                    | In stably transfected Chinese hamster ovary cells, Reversine can competitively inhibit cAMP production stimulated by. In HCT116 cells, Reversine suppresses the Aurora targets and phosphorylation of histone H3. Additionally, in primary human tumor samples, Reversine is capable of inhibiting the formation of leukemia cell colonies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Kinase Assay               | Radioligand Binding Assays: Each tube in the A3 AR competitive binding assay contains 100 µL of membrane suspension (20 µg of protein), 50 µL of [125I]4-amino-3-iodobenzyladenosine-5'-N-methyluronamide (0.5 nM), and 50 µL of increasing concentrations of the test ligands in Tris-HCl buffer (50 mM, pH 7.4) containing 10 mM MgCl <sub>2</sub> and 1 mM EDTA. Nonspecific binding is determined using 10 mM 5'-N-ethylcarboxamidoadenosine in the buffer. The mixtures are incubated at 25°C for 60 min. Binding reactions are terminated by filtration through Whatman GF/B filters under reduced pressure using a MT-24 cell harvester. Filters are washed three times with 9 mL of ice-cold buffer. Radioactivity is determined using a Beckman γ-counter, and the percent inhibition is calculated. |
| Cell Research              | Cell viability of different tumor cell lines is assessed using ATPlite 1step. Briefly, 2 × 10 <sup>4</sup> cells for each well are plated in a 96-well plate in presence of crescent quantity of reversine. After 72 h, the plates are recovered and 100 µL ATPlite solution is added to each well. The plates are shaken for 2 min at 700 rpm and luminescence is measured using EnVision Multilabel plate reader. Each sample is analyzed in triplicate. (Only for Reference)                                                                                                                                                                                                                                                                                                                               |

### Solubility Information

|            |                                                                                                                                                                       |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Solubility | Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 5 mg/mL (12.71 mM), Heating is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## A DRUG SCREENING EXPERT

### Preparing Stock Solutions

|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 2.5414 mL | 12.7068 mL | 25.4136 mL |
| 5 mM  | 0.5083 mL | 2.5414 mL  | 5.0827 mL  |
| 10 mM | 0.2541 mL | 1.2707 mL  | 2.5414 mL  |
| 50 mM | 0.0508 mL | 0.2541 mL  | 0.5083 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.

### Reference

Chen S, et al. J Am Chem Soc. 2004, 126(2), 410-411.

Carlos J A E G, Lima K, Coelho-Silva J L, et al. Reversine exerts cytotoxic effects through multiple cell death

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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

Tel:781-999-4286    E\_mail:info@targetmol.com    Address:36 Washington Street,Wellesley Hills,MA 02481