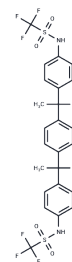


## PTP Inhibitor IV

## Chemical Properties

|                   |   |
|-------------------|---|
| CAS No. :         | 329317-98-8   |
| Formula:          | C <sub>26</sub> H <sub>26</sub> F <sub>6</sub> N <sub>2</sub> O <sub>4</sub> S <sub>2</sub>                         |
| Molecular Weight: | 608.62  |
| Storage:          | Powder: -20°C for 3 years   In solvent: -80°C for 1 year<br>Actual storage temperature shall be subject to the COA. |



## Biological Description

|                            |  |
|----------------------------|--|
| Description                | PTP Inhibitor IV is an effective protein tyrosine phosphatase (PTP) inhibitor, which can selectively inhibit DUSP14 phosphatase activity (IC <sub>50</sub> 5.21 μM). PTP Inhibitor IV inhibited SHP-2, PTP1B, PTP-ε, PTP Meg-2, PTP-σ, PTP-β and PTP-μ, IC <sub>50</sub> were 1.8 μM, 2.5 μM, 8.4 μM, 13 μM, 20 μM, 6.4 μM, and 6.7 μM, respectively. PTP Inhibitor IV affects cellular signaling by inhibiting PTP activity and may regulate specific pathways associated with PTP-mediated signaling events. |
| Targets(IC <sub>50</sub> ) | Phosphatase  |
| In vitro                   | PTP Inhibitor IV downregulates the catalytic activity of DUSP14 by binding at the catalytic site.[1]<br>PTP Inhibitor IV (0-100 μM; 3 hours) effectively and specifically inhibits DUSP14-mediated JNK dephosphorylation.[1]   |

## Solubility Information

|            |  |
|------------|--|
| Solubility | DMSO: 225 mg/mL (369.69 mM), Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|--|

## Preparing Stock Solutions

|       | 1mg       | 5mg       | 10mg       |
|-------|-----------|-----------|------------|
| 1 mM  | 1.6431 mL | 8.2153 mL | 16.4306 mL |
| 5 mM  | 0.3286 mL | 1.6431 mL | 3.2861 mL  |
| 10 mM | 0.1643 mL | 0.8215 mL | 1.6431 mL  |
| 50 mM | 0.0329 mL | 0.1643 mL | 0.3286 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.

### Reference

Park JE, et al. PTP inhibitor IV protects JNK kinase activity by inhibiting dual-specificity phosphatase 14 (DUSP14). *Biochem Biophys Res Commun.* 2009;387(4):795-799.

Huang P, et al. Structure-based design and discovery of novel inhibitors of protein tyrosine phosphatases. *Bioorg Med Chem.* 2003;11(8):1835-1849.

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

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