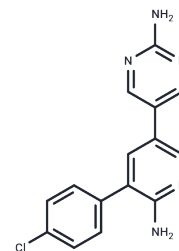


MAP4K4-IN-3

Chemical Properties

| | |
|-------------------|---|
| CAS No. : | 1811510-58-3 |
| Formula: | C ₁₅ H ₁₂ ClN ₅ |
| Molecular Weight: | 297.74 |
| 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 | MAP4K4-IN-3 (Compound 17), a serine/threonine protein kinase, may be a viable target for antidiabetic agents. |
| Targets(IC50) | MAPK |
| In vitro | MAP4K4-IN-3, Antidiabetic agent. MAP4K4-IN-3 is a potent and selective MAP4K4 inhibitor with an IC ₅₀ of 14.9 nM in kinase assay, an IC ₅₀ of 470 nM in cell assay. |
| In vivo | Administering MAP4K4-IN-3 (Compound 2; 25 mg/kg, b.i.d.) orally to telemetered rats over a period of five days induces several adverse reactions. Cardiovascular measurements reveal a significant increase in maximal heart rate by 25 beats per minute (bpm) compared to control groups upon treatment with MAP4K4-IN-3[2]. Additionally, there are noticeable declines in body weight (7%) and an increase in body temperature (0.4°C) against control values throughout the study. |

Solubility Information

| | |
|------------|---|
| Solubility | DMSO: 8 mg/mL (26.87 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|---|

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|------------|
| 1 mM | 3.3586 mL | 16.7932 mL | 33.5864 mL |
| 5 mM | 0.6717 mL | 3.3586 mL | 6.7173 mL |
| 10 mM | 0.3359 mL | 1.6793 mL | 3.3586 mL |
| 50 mM | 0.0672 mL | 0.3359 mL | 0.6717 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

Ammirati M, et al. Discovery of an in Vivo Tool to Establish Proof-of-Concept for MAP4K4-Based Antidiabetic Treatment. ACS Med Chem Lett. 2015 Oct 6;6(11):1128-33.

Dow RL, et al. 2-Aminopyridine-Based Mitogen-Activated Protein Kinase Kinase Kinase Kinase 4 (MAP4K4) Inhibitors: Assessment of Mechanism-Based Safety. J Med Chem. 2018 Apr 12;61(7):3114-3125.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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