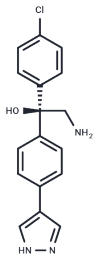
# Data Sheet (Cat.No.T2482)

TargetMol

AT13148

## Chemical Properties



CAS No. : 1056901-62-2

Formula: C17H16ClN3O

Molecular Weight: 313.78

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

## Biological Description

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|---|---|
| Description | AT13148 is an oral-active and ATP-competitive, multi-AGC kinase inhibitor for Akt1/2/3, p70S6K, PKA, and ROCKI/II. |
| Targets(IC50) | Akt,PKA,ROCK,S6 Kinase,SGK |
| In vitro | In PTEN-deficient MES-SA cells, AT13148 was able to inhibit AKT and p70S6K signaling. In cancer cell lines with aberrant PI3K-AKT-mTOR or RAS-RAF pathways (GI50=1.5-3.8 μM), AT13148 was able to inhibit multiple AGC kinases, thereby suppressing cancer cell proliferation. |
| In vivo | In PTEN-deficient MES-SA cells, AT13148 was able to inhibit AKT and p70S6K signaling. In cancer cell lines with aberrant PI3K-AKT-mTOR or RAS-RAF pathways (GI50=1.5-3.8 μM), AT13148 was able to inhibit multiple AGC kinases, thereby suppressing cancer cell proliferation. |
| Kinase Assay | In vitro kinase assays: AT13148 is assayed against 40 kinases and the percentage inhibition at 10 μM of AT13148 is determined. Individual IC50 values are measured for selected kinases using ATP concentrations equivalent to the Km for each enzyme. |
| Cell Research | Cytotoxicity is determined using a 72 h Alamar Blue assay or a 96 h SRB assay. (Only for Reference) |

## Solubility Information

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|---|---|
| Solubility | H2O: < 1 mg/mL (insoluble or slightly soluble),<br>Ethanol: < 1 mg/mL (insoluble or slightly soluble),<br>DMSO: 58 mg/mL (184.84 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (6.37 mM),Sonication is recommended.<br>*Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.* |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 3.1869 mL | 15.9347 mL | 31.8695 mL |
| 5 mM | 0.6374 mL | 3.1869 mL | 6.3739 mL |
| 10 mM | 0.3187 mL | 1.5935 mL | 3.1869 mL |
| 50 mM | 0.0637 mL | 0.3187 mL | 0.6374 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

Yap TA, et al. Clin Cancer Res. 2012, 18(14), 3912-3923.