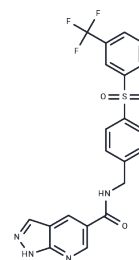


GNE-618

## Chemical Properties

CAS No. : 1362151-42-5  
 Formula: C<sub>21</sub>H<sub>15</sub>F<sub>3</sub>N<sub>4</sub>O<sub>3</sub>S  
 Molecular Weight: 460.43  
 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                | GNE-618 is a potent and orally active inhibitor of nicotinamide phosphoribosyltransferase (IC <sub>50</sub> : 6 nM). GNE-618 depletes NAD levels and induces tumor cell death. It has anti-tumor activity.                                                                                                                                                                                                                                                                                                  |
| Targets(IC <sub>50</sub> ) | NAMPT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| In vitro                   | GNE-618 decreases levels of NAD (EC <sub>50</sub> : 2.6 nM in the NSCLC cell line Calu-6). GNE-618 also reduces cellular proliferation of Calu-6 cells as determined using two different assay formats, either measuring ATP (EC <sub>50</sub> : 13.6 nM) or total protein content (SRB assay; EC <sub>50</sub> : 25.8 nM). GNE-618 (10-30 nM; 72 hours) displays an increase in the sub-2N population and a reduction in the percentage of cells in the G1 and M phases of the cell cycle in Calu-6 cells. |
| In vivo                    | In the STO#81 patient-derived gastric cancer model, GNE-618 administered orally at a dosage of 100 mg/kg twice daily for 5 days significantly inhibits tumor growth by 88%, while having minimal effects on body weight.                                                                                                                                                                                                                                                                                    |

## Preparing Stock Solutions

|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 2.1719 mL | 10.8594 mL | 21.7188 mL |
| 5 mM  | 0.4344 mL | 2.1719 mL  | 4.3438 mL  |
| 10 mM | 0.2172 mL | 1.0859 mL  | 2.1719 mL  |
| 50 mM | 0.0434 mL | 0.2172 mL  | 0.4344 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

Xiao Y, et al. Dependence of tumor cell lines and patient-derived tumors on the NAD salvage pathway rendersthem sensitive to NAMPT inhibition with GNE-618. Neoplasia. 2013 Oct;15(10):1151-60.

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