

BMS-566419

Chemical Properties

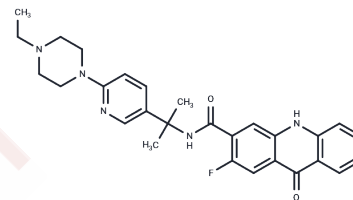
CAS No. : 566161-24-8

Formula: C₂₈H₃₀FN₅O₂

Molecular Weight: 487.57

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 | BMS-566419 is an acridone-based inhibitor of inosine 5'-monophosphate dehydrogenase, a rate-limiting enzyme in de novo guanosine nucleotide biosynthesis, and through suppression of lymphocyte proliferation it has demonstrated clinical utility as a research compound for investigating immunosuppression mechanisms and therapeutic strategies in transplant rejection. |
| Targets(IC50) | Dehydrogenase |
| In vitro | In enzymatic assays, BMS-566419 specifically inhibited human IMPDH II with an IC ₅₀ of approximately 10 nM [1]. |
| In vivo | In a rat model of Collagen-Induced Arthritis (CIA), oral administration of BMS-566419 reduced joint inflammation and disease progression. Pharmacokinetic studies demonstrated oral bioavailability for the compound [1]. |

Solubility Information

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|------------|--|
| Solubility | DMSO: 10 mg/mL (20.51 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|--|

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|------------|
| 1 mM | 2.051 mL | 10.2549 mL | 20.5099 mL |
| 5 mM | 0.4102 mL | 2.051 mL | 4.102 mL |
| 10 mM | 0.2051 mL | 1.0255 mL | 2.051 mL |
| 50 mM | 0.041 mL | 0.2051 mL | 0.4102 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

Watterson SH, et al. Acridone-based inhibitors of inosine 5'-monophosphate dehydrogenase: discovery and SAR leading to the identification of N-(2-(6-(4-ethylpiperazin-1-yl)pyridin-3-yl)propan-2-yl)-2-fluoro-9-oxo-9,10-dihydroacridine-3-carboxamide (BMS-566419). *J Med Chem.* 2007;50(15):3730-3742.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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