

MD102

Chemical Properties

CAS No. : 2755794-94-4
Formula: C₁₃H₄BrCl₂FN₂O₂
Molecular Weight: 389.99
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	MD102 is a potent inhibitor of Transglutaminase 2 (IC ₅₀ ≈ 0.35 μM). By inhibiting TG2 activity, MD102 modulates cancer-related signaling pathways. In cellular models, its effects are associated with p53 stabilization and downregulation of p-AKT and p-mTOR signaling, and it induces apoptosis in cancer cells.
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5642 mL	12.8208 mL	25.6417 mL
5 mM	0.5128 mL	2.5642 mL	5.1283 mL
10 mM	0.2564 mL	1.2821 mL	2.5642 mL
50 mM	0.0513 mL	0.2564 mL	0.5128 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

Kim GR, et al. Discovery of novel 1H-benzo[d]imidazole-4,7-dione based transglutaminase 2 inhibitors as p53 stabilizing anticancer agents in renal cell carcinoma. *Bioorg Chem.* 2023 Dec 25;143:107061.

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Tel: 781-999-4286 E_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481