Data Sheet (Cat.No.T209245)

TargetMol

NCA029

Chemical Properties

CAS No. :

Formula: C22H20F3N3O

Molecular Weight:

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	NCA029 is a potent activator of human caseinolytic protease P (HsClpP) with an EC50 of 0.15 μM. It targets HsClpPP and triggers an ATF3-dependent integrated stress response, resulting in the death of colon cancer cells.
Targets(IC50)	Apoptosis,Protease
In vitro	NCA029 inhibits human colorectal adenocarcinoma cell lines (COAD), with IC50 values for HCT116, SW620, HCT15, SW480, and DLD-1 recorded at 1.1 μM, 1.5 μM, 3.5 μM, 5.4 μM, and 3.1 μM, respectively. It increases reactive oxygen species (ROS) levels in HCT116 cells in a dose-dependent manner, indicating impaired respiratory chain activity. At concentrations of 0.5-2 μM for 48 hours, NCA029 suppresses the proliferation and metastasis of tumor cellsand induces apoptosis in a dose-dependent fashion while arresting HCT116 cells at the G2/M phase. Additionally, NCA029 (0.5-2 μM) reduces the expression of SDHB and increases the pro-apoptotic protein BAX while decreasing the expression of the anti-apoptotic protein Bcl-2 in a dose-dependent manner.
In vivo	NCA029 (1.25-5 mg/kg; intravenous injection; twice weekly; for 21 days) significantly suppresses tumor growth in HCT116 xenografts.

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