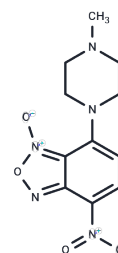


XI-006

Chemical Properties

CAS No. : 58131-57-0
 Formula: C₁₁H₁₃N₅O₄
 Molecular Weight: 279.25
 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	XI-006 (XI-006) suppresses MDMX with IC ₅₀ of 2.5 μM, leading to enhanced p53 stabilization/activation and DNA damage, and also regulates MDM2, an E3 ligase.
Targets(IC50)	Mdm2,p53,MDM-2/p53
In vitro	XI-006 decreases both the MDMX mRNA and protein in MCF-7 cells. XI-006 induces expression of p53 as well as well-characterized p53-target gene, p21 and MDM2, in a dose-dependent manner in MCF-7 cells. XI-006 extends the half-life of p53 from 20 to 30 minutes to more than 3 hours as revealed by cycloheximide chase assays in MCF-7 cells. XI-006 also activates p53 and induces p21 and MDM2 expression in LNCaP prostate and A549 lung cancer cells. XI-006 increases the mRNA levels of proapoptotic genes including PUMA, BAX, and PIG3 in a dose-dependent manner in MCF-7 cells. XI-006 results in a significant increase in the numbers of sub-G ₀ /G ₁ cells as well as G ₂ arrest. XI-006 also results in more than 40% of cells dying via apoptosis and decreases cell viability in A549 and LNCaP cells. [1] XI-006 inhibits biosynthesis of nucleic acids and proteins in L1210 cells. [2] XI-006 interacts with DNA repair to activate the DNA damage repair pathway in three species (<i>S. cerevisiae</i> , <i>S. pombe</i> and <i>H. sapiens</i>). [3] XI-006 acts as cytotoxic agent in the G/R-luc astrocytoma cell line with GI ₅₀ of 117 nM. [4]
Cell Research	MCF-7 cells treated with dimethyl sulfoxide (DMSO), nutlin-3a, or NSC-207895 are permeabilized with cold 70% ethanol overnight, and stained with a solution containing 50 μg/mL propidium iodide and 20 μg/mL RNase A at 37°C for 20 minutes. The cells are then subjected to flow cytometry analysis. The Flowjo software is used to calculate percentages of cells in each cell cycle phase. For terminal deoxynucleotidyl transferase-mediated dUTP nick end labeling (TUNEL) staining, MCF-7 cells treated with the NSC-207895 for 2 days are fixed with 4% paraformaldehyde for 1 hour, and then subjected to dUTP labeling using In Situ Cell Death Detection Kit TMR Red according to the manufacturer's protocol. For quantitation, at least 300 cells are randomly chosen and the numbers of TUNEL-positive cells are counted. (Only for Reference)

Solubility Information

Solubility	DMSO: 55 mg/mL (196.96 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), H ₂ O: < 1 mg/mL (insoluble or slightly soluble),
------------	--

A DRUG SCREENING EXPERT

Solubility	(< 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 (7.16 mM),Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.581 mL	17.9051 mL	35.8102 mL
5 mM	0.7162 mL	3.581 mL	7.162 mL
10 mM	0.3581 mL	1.7905 mL	3.581 mL
50 mM	0.0716 mL	0.3581 mL	0.7162 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

- Wang H, et al. Mol Cancer Ther, 2011, 10(1), 69-79.
Kessel D, et al. Cancer Res, 1975, 35(12), 3735-3740.
Kapitzky L, et al. Mol Syst Biol, 2010, 6, 451.
Hawes JJ, et al. J Biomol Screen, 2008, 13(8), 795-803.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only· Not for Human or Veterinary or Therapeutic Use

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