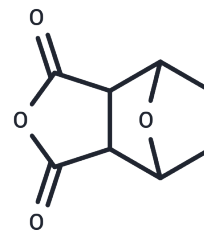


(±)-Norcantharidin**Chemical Properties**

CAS No. :	29745-04-8
Formula:	C ₈ H ₈ O ₄
Molecular Weight:	168.15
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>

**Biological Description**

Description	(±)-Norcantharidin (Endothall anhydride) is a synthetic anticancer compound which is a dual inhibitor for c-Met and EGFR in human colon cancers.
Targets(IC50)	EGFR,c-Met/HGFR
In vivo	NCTD might be a useful and inexpensive drug candidate to substitute for gefitinib to serve the treatment needs of cancer patients[1].NCTD inhibits the growth of xenografted tumors of human gallbladder carcinoma in nude mice by inducing apoptosis and blocking the cell cycle in vivo[2].
Cell Research	Two human colon cancer cell lines, HCT116 and HT29, were used as model systems to investigate the anti-cancer molecular mechanism of NCTD. Cell cycle arrest and early/late apoptosis were analyzed by flow cytometry. The levels of EGFR, phospho-EGFR, c-Met, phospho-c-Met and other related proteins were quantified by western blot analysis[1]
Animal Research	The tumor xenograft model of human gallbladder carcinoma in nude mice in vivo was established with subcutaneous GBC-SD cells. The experimental mice were randomly divided into control, 5-FU, NCTD, and NCTD+5-FU groups which were given different treatments. Tumor growth in terms of size, growth curve, and inhibitory rate was evaluated. Cell cycle, apoptosis, and morphological changes of the xenografted tumors were assessed by flow cytometry and light/electron microscopy. The expression of the cell cycle-related proteins cyclin-D1 and p27 as well as the apoptosis-related proteins Bcl-2, Bax, and survivin were determined by the streptavidin-biotin complex (SABC) method and RT-PCR[2].

Solubility Information

Solubility	DMSO: 60 mg/mL (356.82 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.9471 mL	29.7354 mL	59.4707 mL
5 mM	1.1894 mL	5.9471 mL	11.8941 mL
10 mM	0.5947 mL	2.9735 mL	5.9471 mL
50 mM	0.1189 mL	0.5947 mL	1.1894 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

Qiu P , Wang S , Liu M , et al. Norcantharidin Inhibits cell growth by suppressing the expression and phosphorylation of both EGFR and c-Met in human colon cancer cells[J]. BMC Cancer, 2017, 17(1):55.

Fan Y Z , Zhao Z M , Fu J Y , et al. Norcantharidin Inhibits Growth of Human Gallbladder Carcinoma Xenografted Tumors in Nude Mice by Inducing Apoptosis and Blocking the Cell Cycle in vivo[J]. Hepatobiliary & Pancreatic Diseases International, 2010, 9(4):414-422.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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