Data Sheet (Cat.No.T1314)

TargetMol

Triclosan

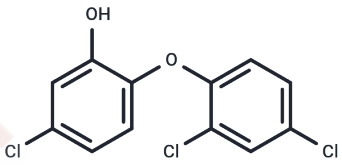
Chemical Properties

CAS No. : 3380-34-5

Formula: C12H7Cl3O2

Molecular Weight: 289.54

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	Triclosan (Irgasan) is an antibacterial and antifungal agent.
Targets(IC50)	Apoptosis,Antibacterial,Antibiotic,Autophagy,Antifungal,NADPH
In vitro	cancer cells with triclosan at the physiologically related concentrations significantly increases the colony number of the cancer cells assessed by tumor formation assay. Triclosan-treated cells have a mesenchymal-like morphology and decrease the cell-to-cell adhesion. Triclosan-treated cells exhibit decreased E-cadherin while significantly up-regulated levels of EMT markers, namely N-cadherin, vimentin, snail and slug. Triclosan may potentiate cancer cells survival in detached condition and motility via the process of EMT[2].
In vivo	Triclosan plays a pathologic role in promoting tissue fibrogenesis, leading to liver carcinogenesis. It accelerates both HCC development and its long-term effects on liver damage, accompanied by fibrosis and inflammation in mice[1].
Cell Research	CV-1 cells are maintained in DMEM supplemented with 10% FBS, seeded in 96-well plates, and transfected with an expression vector containing a specific nuclear receptor and RXR, along with a luciferase reporter containing the appropriate DNA response element. The assay is first validated with known nuclear receptor ligands as positive controls. For the CAR ligand-binding assay, CV-1 cells are transiently transfected with the expression vector containing the Gal4 DNA-binding domain fused with the ligand-binding domain of murine or human CAR and cotransfected with the luciferase reporter plasmid, mh 100-luc. The day after the transfection, the positive compound of each nuclear receptor or TCS(Triclosan) is added and the cells are incubated for an additional 24 h. The luciferase activities are measured and normalized by β-gal activity.(Only for Reference)

Solubility Information

Solubility	DMSO: 250 mg/mL (863.44 mM),Sonication is recommended. Ethanol: 57 mg/mL (196.86 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

In vivo Formulation	10% DMSO+90% Saline: < 10 mg/mL (34.54 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (34.54 mM),Solution. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4538 mL	17.2688 mL	34.5375 mL
5 mM	0.6908 mL	3.4538 mL	6.9075 mL
10 mM	0.3454 mL	1.7269 mL	3.4538 mL
50 mM	0.0691 mL	0.3454 mL	0.6908 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

Yueh MF, et al. Proc Natl Acad Sci U S A. 2014, 111(48):17200-5.
Hao Z, Wu Q, Li Z, et al. Maternal exposure to triclosan constitutes a yet unrecognized risk factor for autism spectrum disorders. Cell Research. 2019, 29(10): 866-869
Winitthana T, et al. PLoS One. 2014, 9(10):e110851.
Hao Z, Wu Q, Li Z, et al. Maternal exposure to triclosan constitutes a yet unrecognized risk factor for autism spectrum disorders. Cell Research. 2019, 29(10): 866-869.

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