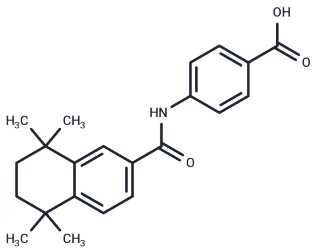
Data Sheet (Cat.No.T5854)

TargetMol

AM580

Chemical Properties



CAS No. : 102121-60-8

Formula: C22H25NO3

Molecular Weight: 351.44

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	AM580 (CD336) is a retinoic acid receptor agonist that is selective for RARα(IC50 : 8 nM)
Targets(IC50)	Retinoid Receptor,Autophagy
In vitro	AM580 can inhibit the proliferation of various tumor cells,inhibiting survival signaling pathways and inducing apoptosis[1].
In vivo	Modulation of the RARα/β to RARγ expression in mammary glands of normal mice, oncomice, and human mammary cell lines through the alteration of RAR-target gene expression affected cell proliferation, survival and tumor growth.?Treatment of MMTV-Myc mice with the RARα-selective agonist Am580 led to significant inhibition of mammary tumor growth (~90%, P<0.001), lung metastasis (P<0.01) and extended tumor latency in 63% of mice.?In these mice, RARα responsive genes such as Cyp26A1, E-cadherin, cellular retinol-binding protein 1 (CRBP1) and p27, were up-regulated[2].
Cell Research	Ishikawa cells were transfected with control siRNA or siRNA specific against the RARα gene.Cells were treated with vehicle control or AM580 for 18 h.Cells were stained with trypan blue and counted[1].
Animal Research	The effects of c-Myc on RAR isotype expression were evaluated in normal mouse mammary epithelium, mammary tumor cells obtained from the MMTV-Myc transgenic mouse model as well as human normal immortalized breast epithelial and breast cancer cell lines.?The in vivo effect of the RARα-selective agonist 4-[(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)carboxamido]benzoic acid (Am580) was examined in the MMTV-Myc mouse model of mammary tumorigenesis[2].

Solubility Information

Solubility	DMSO: 50 mg/mL (142.27 mM),Sonication is recommended. (< 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 (5.69 mM),Sonication is recommended. *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*

In vivo Formulation	*vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8454 mL	14.2272 mL	28.4544 mL
5 mM	0.5691 mL	2.8454 mL	5.6909 mL
10 mM	0.2845 mL	1.4227 mL	2.8454 mL
50 mM	0.0569 mL	0.2845 mL	0.5691 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

Cheng Y H , Utsunomiya H , Pavone M E , et al. Retinoic acid inhibits endometrial cancer cell growth via multiple genomic mechanisms[J]. Journal of Molecular Endocrinology, 2011, 46(2):139-153.

Bosch A , Bertran S P , Lu Y , et al. Reversal by RARα agonist Am580 of c-Myc-induced imbalance in RARα/RARγ expression during MMTV-Myc tumorigenesis[J]. Breast Cancer Research,14,4(2012-08-24), 2012, 14(4).