

Chrysotobibenzyl

Chemical Properties

CAS No. :	108853-09-4
Formula:	C ₁₉ H ₂₄ O ₅
Molecular Weight:	332.39
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	Chrysotobibenzyl, a bibenzyl found in the stem of <i>Dendrobium pulchellum</i> , may facilitate anoikis and inhibit the growth of lung cancer cells in anchorage-independent condition. Chrysotobibenzyl is therefore used in cancer metastasis research models to investigate anoikis-associated cell death mechanisms and anchorage-independent growth regulation in lung cancer cell systems. Chrysotobibenzyl is also applied in extracellular matrix detachment studies to evaluate survival signaling changes under non-adherent cellular conditions.
Targets(IC50)	Others
In vivo	Method: Human lung cancer cells (H460, H292, A549, H23) and non-cancerous human cells (HCT116, primary DP1, DP2) were treated with chrysotobibenzyl (0-50 μ M) for 48 h to assess cytotoxicity, proliferation, migration, invasion, filopodia formation, EMT markers, and signaling protein levels. shRNA-Cav-1-transfected H460 and H292 cells were also generated to assess effects on migration and integrin expression. Result: Chrysotobibenzyl was non-cytotoxic in all tested cancer and non-cancerous cell lines. At 50 μ M, it significantly altered cell proliferation in H292 cells at 48 h. At 1-50 μ M, it significantly inhibited H460 and H292 cell migration, invasion, filopodia formation, and EMT in a dose-dependent manner at 48 h, associated with reduced integrins β 1, β 3, α v, p-FAK, p-AKT, Cdc42, and Cav-1 protein levels. shCav-1-transfected cells showed decreased migration and reduced integrins β 1, β 3, and α v compared with control cells. Chrysotobibenzyl reduced EMT markers Vimentin, Snail, and Slug, and increased sensitivity of lung cancer cells to cisplatin-induced apoptosis.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0085 mL	15.0426 mL	30.0851 mL
5 mM	0.6017 mL	3.0085 mL	6.017 mL
10 mM	0.3009 mL	1.5043 mL	3.0085 mL
50 mM	0.0602 mL	0.3009 mL	0.6017 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

Petpiroon N, et al. Chrysotobibenzyl inhibition of lung cancer cell migration through Caveolin-1-dependent mediation of the integrin switch and the sensitization of lung cancer cells to cisplatin-mediated apoptosis. *Phytomedicine*. 2019 May;58:152888.

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