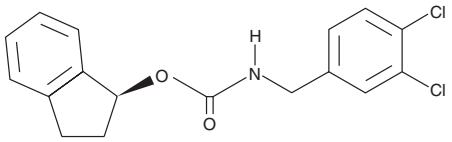
PRODUCT INFORMATION

CAY10443

Item No. 10004177

CAS Registry No.: 582314-48-5
Formal Name: [(3,4-dichlorophenyl)methyl]-carbamic acid, (1S)-2,3-dihydro-1H-inden-1-yl ester
Synonym: (S)-Indan-1-yl 3,4-dichlorobenzylcarbamate
MF: $C_{17}H_{15}Cl_2NO_2$
FW: 336.2
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

CAY10443 is supplied as a crystalline solid. A stock solution may be made by dissolving CAY10443 in an organic solvent purged with an inert gas. CAY10443 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of CAY10443 in these solvents is approximately 5 mg/ml in ethanol and 25 mg/ml in DMSO and DMF.

CAY10443 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10443 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CAY10443 has a solubility of approximately 0.25 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Mitochondrial release of cytochrome *c* triggers apoptosis *via* the assembly of a multimeric complex including caspase-9, Apaf-1, and other components, sometimes called the apoptosome.[1] Library screens have identified small molecules that activate the apoptosome by binding to one or more of its components. CAY10443 is one such molecule. In a cell free, multi-component assay, it activated caspase-3 with an EC_{50} value of 5 µM.[2] These apoptotic activators represent therapeutic lead compounds for the development of antitumor drugs.

References

1. Cecconi, F., Alvarez-Bolado, G., Meyer, B.I., *et al.* Apaf1 (CED-4 homolog) regulates programmed cell death in mammalian development. *Cell* **94**, 727-737 (1998).
2. Nguyen, J.T. and Wells, J.A. Direct activation of the apoptosis machinery as a mechanism to target cancer cells. *Proc. Natl. Acad. Sci. USA* **100(13)**, 7533-7538 (2003).

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