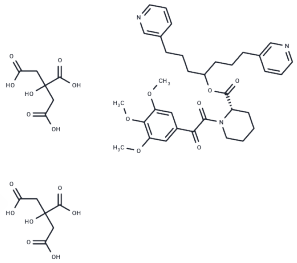
Data Sheet (Cat.No.T67790)

TargetMol

Biricodar dicitrate

Chemical Properties



CAS No. : 174254-13-8

Formula: C46H57N3O21

Molecular Weight: 987.95

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	Biricodar dicitrate (VX-710) is a potent MDR inhibitor with no anticancer activity and can be used to study prostate cancer.
Targets(IC50)	NF-κB,AChR,P-gp
In vitro	Biricodar exhibits activity against both P-glycoprotein (Pgp) and MRP-1, enhancing drug uptake and retention while reversing drug resistance mediated by wild-type BCRP (BCRPR482). In Pgp-expressing 8226/Dox6 cells, biricodar increases the uptake of mitoxantrone and daunorubicin by 55% and 100%, respectively. It enhances their retention by 100% and 60%, respectively, and boosts their cytotoxicity by 3.1- and 6.9-fold, respectively. Furthermore, biricodar has similar effects on HL60/Adr cells (MRP-1) and 8226/MR20 cells (BCRP(R482)), but it has little impact on MCF7 AdVP3000 cells (BCRP (R482T))[1]. VX-710, a non-macrocyclic pipecolinate derivative binding to the FK506 receptor protein, has been shown to restore sensitivity in various multidrug-resistant cells, including myeloma, melanoma, carcinoma, and leukemia[2]. Additionally, biricodar effectively inhibits the photoaffinity labeling of P-glycoprotein by [3H] azidopine or [125I]iodoaryl azido-prazosin, with EC50 values of 0.75 and 0.55 μM[3].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.0122 mL	5.061 mL	10.122 mL
5 mM	0.2024 mL	1.0122 mL	2.0244 mL
10 mM	0.1012 mL	0.5061 mL	1.0122 mL
50 mM	0.0202 mL	0.1012 mL	0.2024 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

Minderman H, et al. VX-710 (biricodar) increases drug retention and enhances chemosensitivity in resistant cells overexpressing P-glycoprotein, multidrug resistance protein, and breast cancer resistance protein. Clin Cancer Res. 2004 Mar 1;10(5):1826-34.

Yanagisawa T, et al. BIRICODAR (VX-710; Incel): an effective chemosensitizer in neuroblastoma. Br J Cancer. 1999 Jun;80(8):1190-6.

Germann UA, et al. Cellular and biochemical characterization of VX-710 as a chemosensitizer: reversal of P-glycoprotein-mediated multidrug resistance in vitro. Anticancer Drugs. 1997 Feb;8(2):125-40.

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