Product Data Sheet

Product Name: Arylquin 1
Cat. No.: GC10040

Chemical Properties

Cas. No.	1630743-73-5		
Chemical Name	3-(2-fluorophenyl)-N^7,N^7-dimethyl-2,7-quinolinediamine		
SMILES	CN(C)C1=CC=C2C(N=C(N)C(C3=CC=CC=C3F)=C2)=C1		
Formula	$C_{17}H_{16}FN_3$	M.Wt	281.3
Solubility	DMSO: 20 mg/ml	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Arylquin 1		

Background

Arylquin 1 is a potent secretagogue of the tumor suppressor protein prostate apoptosis response-4 (Par-4).

Par-4 is ubiquitously expressed in normal cells and tissues, but it is inactivated, downregulated or mutated in several types of cancers. Par-4 can selectively induce cancer cell apoptosis but not normal cells. Both intracellular and secreted Par-4 have a role in apoptosis induction by caspase-dependent mechanisms.

In vitro: Previous study showed that Arylquin 1 produced a dose-dependent secretion in MEF cells and also induced robust secretion of Par-4 in normal or immortalized human cells but failed to induce the secretion of Par-4 in various lung tumor cells. Moreover, it was found that Brefeldin A, which blocked anterograde endoplasmic reticulum–Golgi traffic, could inhibit basal and Arylquin 1–inducible Par-4 secretion, indicating that Arylquin 1 regulated Par-4 secretion through the classical secretory pathway. In addition, cells treated with Arylquin 1 showed neither Par-4 co-immunoprecipitation nor

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colocalization with vimentin, suggesting that Arylquin 1 could displace Par-4 from vimentin. This action of Arylquin 1 was not associated with inhibition of vimentin expression, demonstrating that Arylquin 1 might cause conformational changes in vimentin to block its ability to bind and sequester Par-4 [1].

In vivo: So far, there is no animal in vivo data reported.

Clinical trial: Up to now, Arylquin 1 is still in the preclinical development stage.

Reference:
[1] Burikhanov R et al. Arylquins target vimentin to trigger Par-4 secretion for tumor cell apoptosis. Nat Chem Biol. 2014 Nov;10(11):924-6.