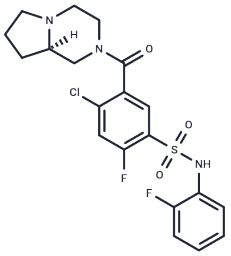
Data Sheet (Cat.No.T3703)

TargetMol

ABT-639

Chemical Properties



CAS No. : 1235560-28-7

Formula: C20H20ClF2N3O3S

Molecular Weight: 455.91

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	ABT-639 is a potent and selective T-type calcium channel blocker.
Targets(IC50)	Calcium Channel
In vitro	ABT-639 is significantly less active at other Ca2+ channels (e.g. Cav1.2 and Cav2.2) (IC50 > 30 μM). ABT-639 has high oral bioavailability (%F = 73), low protein binding (88.9%) and a low brain:plasma ratio (0.05:1) in rodents.
In vivo	Following oral administration ABT-639 produces dose-dependent antinociception in a rat model of knee joint pain (ED50 = 2 mg/kg, p.o.). ABT-639 (10-100 mg/kg, p.o.) also increases tactile allodynia thresholds in multiple models of neuropathic pain. The antinociceptive profile of ABT-639 provides novel insights into the role of peripheral T-type (Cav3.2) channels in chronic pain states.

Solubility Information

Solubility	DMSO: 55 mg/mL (120.64 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1934 mL	10.9671 mL	21.9342 mL
5 mM	0.4387 mL	2.1934 mL	4.3868 mL
10 mM	0.2193 mL	1.0967 mL	2.1934 mL
50 mM	0.0439 mL	0.2193 mL	0.4387 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

Jarvis MF, et al. Biochem Pharmacol. 2014 Jun 15;89(4):536-44.