Product Name: ABT-639
CAS No.: 1235560-28-7
Cat. No.: HY-19721
MWT: 455.91
Formula: C20H20ClF2N3O3S
Purity: >98%
Solubility: DMSO: > 10 mg/mL

Mechanisms:
Pathways: Membrane Transporter/Ion Channel; Target: Calcium Channel

Biological Activity:
ABT-639 is a novel, peripherally acting, selective T-type Ca2+ channel blocker. ABT-639 blocks recombinant human T-type (Cav3.2) Ca2+ channels in a voltage-dependent fashion (IC50 = 2 μM) and attenuates LVA currents in rat DRG neurons (IC50 = 8 μM).

IC50 value: 2 μM
Target: Ca2+ 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. [1]

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...

References:

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