

PRODUCT INFORMATION



Z944

Item No. 27679

CAS Registry No.: 1199236-64-0
Formal Name: 4-[[[(3-chloro-5-fluorobenzoyl)

amino]methyl]-N-(1,1-dimethylethyl)-1-piperidineacetamide

MF: C₁₉H₂₇ClFN₃O₂

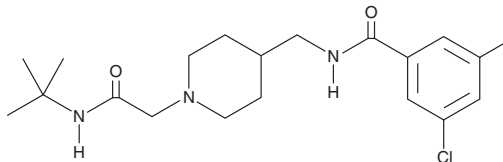
FW: 383.9

Purity: ≥98%

Supplied as: A 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

Z944 is supplied as a solid. A stock solution may be made by dissolving the Z944 in the solvent of choice, which should be purged with an inert gas. Z944 is soluble in chloroform and methanol.

Description

Z944 is an inhibitor of T-type calcium channels (IC_{50} s = 0.050-0.160 μ M for the human recombinant voltage-gated calcium (Ca_v) channels $Ca_v3.1$, $Ca_v3.2$, and $Ca_v3.3$).¹ It is selective for T-type channels over the N-type $Ca_v2.2$ channel (IC_{50} = 11 μ M), as well as the rat L-type $Ca_v1.2$, human-ether-a-go-go (hERG/ $K_v11.1$) potassium, and human voltage-gated sodium (Na_v) channel $Na_v1.5$ (IC_{50} s = 32, 7.8, and 100 μ M, respectively). Z944 (30 mg/kg) reduces the seizure duration and the amount of time rats spend in seizures in a model of absence epilepsy. It delays seizure progression in amygdala-kindled rats but does not inhibit seizures in fully kindled rats.²

References

1. Tringham, E.W., Powell, K.L., Cain, S.M., *et al.* T-type calcium channel blockers that attenuate thalamic burst firing and suppress absence seizures. *Sci. Transl. Med.* **4**(121), 121ra19 (2012).
2. Casillas-Espinosa, P.M., Hicks, A., Jeffreys, A.B., *et al.* Z944, a novel selective T-type calcium channel antagonist delays the progression of seizures in the amygdala kindling model. *PLoS One* **10**(8), e0130012 (2015).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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