Product Datasheet

NBI-921352

Catalog No. **BP-01976** · CAS **2154406-04-7** · Form **free base** · Physical state **solid** · Color **White to light yellow** · Version **1.0** · Revision **2026-09-09**

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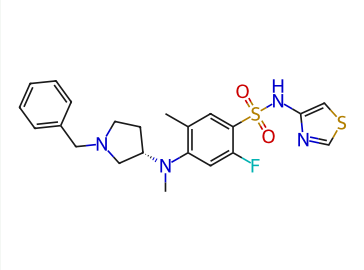
Target	Research area
Sodium Channel	**Neurological Disease**

Molecular formula	$C_{22}H_{25}FN_4O_2S_2$
Molecular weight	**460.5880**

STRUCTURE



DESCRIPTION

Zandatrigine (NBI-921352) is a sodium channel protein type 8 subunit alpha (Scn8α) blocker.

BIOLOGICAL ACTIVITY

In Vitro

Zandatrigine significantly inhibits persistent sodium current (INaP) in HEK293 cells expressing NaV1.6, with IC50 of 0.051 μM and 0.058 μM for hNaV1.6 and mNaV1.6, respectively; while the IC50 for hNaV1.1, hNaV1.2, mNaV1.1, and NaV1.2 are 39 μM, 6.9 μM, 709 μM, and 191 μM, respectively.

In Vivo

Zandatrigine (15 mg/kg; oral; single dose, 2 hours before electrical epilepsy induction) significantly reduces the incidence of electric shock-induced generalized tonic-clonic seizures (GTCs) in the Scn8aN1768D/+ gene mutant mouse model, with an ED50 of 15 mg/kg, with a positively correlated concentration in the brain with the therapeutic effect.

SOLUBILITY

Soluble in DMSO : 125 mg/mL

REFERENCES

[1]. Bialer M, et al. Progress report on new antiepileptic drugs: A summary of the Fourteenth Eilat Conference on New Antiepileptic Drugs and Devices (EILAT XIV). I. Drugs in preclinical and early clinical development. Epilepsia. 2018 Oct;59(10):1811-1841.

[2]. Johnson JP, et al. Epileptogenic Channelopathies Guide Design of NBI-921352, a Highly Isoform-Selective Inhibitor of NaV1.6. In: Noebels JL, Avoli M, Rogawski MA, Vezzani A, Delgado-Escueta AV, editors. Jasper's Basic