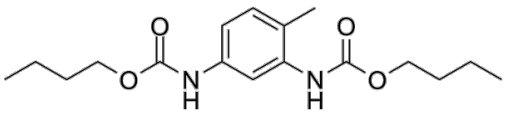
# Product Data Sheet

Product Name: Nav1.2-IN-2
Cat. No.: GC79520

## Chemical Properties

| | | | |
|---|---|---|---|
| Cas. No. | 7469-49-0 | | |
| Formula | $C_{17}H_{26}N_2O_4$ | M.Wt | 322.4 |
| Solubility | DMSO: 4.17 mg/mL (12.93 mM; Need ultrasonic) | Storage | Store at -20°C |
| General tips | For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C 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




***Caution: Product has not been fully validated for medical applications. For research use only.***
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## Background

Nav1.2-IN-2 is a Nav1.2 inhibitor with a human $IC_{50}$ of 0.18 μM. Nav1.2-IN-2 preferentially binds to the inactivated state of Nav1.2, reduces window current, suppresses neuronal depolarization and action potential generation. Nav1.2-IN-2 suppresses Veratridine -induced Ca 2+ influx. Nav1.2-IN-2 can be used for the research of epilepsy [1].

In Vitro, Nav1.2-IN-2 (Compound 1) (0.1-10 μM; 15 min) potently suppresses spontaneous synchronized Ca2+ oscillation amplitude and frequency in primary cultured neocortical neurons with $IC_{50}$ values of 0.38 μM and 0.88 μM, respectively [1]. Nav1.2-IN-2 (0.1-10 μM; 15 min) potently inhibits Veratridine-induced Ca2+ influx in primary cultured neocortical neurons with an $IC_{50}$ of 1.89 μM[1]. Nav1.2-IN-2 exhibits state-dependent inhibition of Nav1.2 in transiently transfected HEK-293 cells, shifting steady-state inactivation hyperpolarization by 10.99 mV and inhibiting the inactivated state with an $IC_{50}$ of 0.18 μM, while having no effect on steady-state activation [1].

References:

[1]. Xu J, et al. Aniline analogues as synchronized Ca 2+ oscillation modulators: structure-activity relationship and mechanism. Eur J Med Chem. 2026;301:118267.

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