

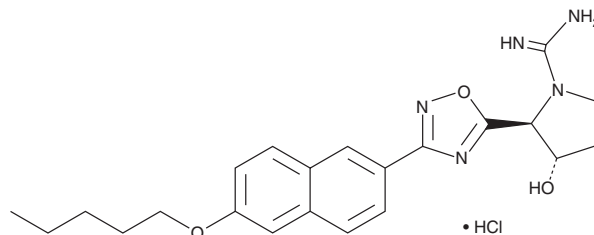
# PRODUCT INFORMATION



## SLC5111312 (hydrochloride)

Item No. 23288

**CAS Registry No.:** 1870811-01-0  
**Formal Name:** (2S,3S)-3-hydroxy-2-[3-[6-(pentyloxy)-2-naphthalenyl]-1,2,4-oxadiazol-5-yl]-1-pyrrolidinecarboximidamide, monohydrochloride  
**MF:** C<sub>22</sub>H<sub>27</sub>N<sub>5</sub>O<sub>3</sub> • HCl  
**FW:** 445.9  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 237 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

SLC5111312 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the SLC5111312 (hydrochloride) in the solvent of choice. SLC5111312 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of SLC5111312 (hydrochloride) in these solvents is approximately 14, 3, and 2 mg/ml, respectively.

SLC5111312 (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SLC5111312 (hydrochloride) should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. SLC5111312 (hydrochloride) has a solubility of approximately 0.2 mg/ml in a 1:4 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

SLC5111312 is a dual inhibitor of sphingosine kinase 1 (SPHK1) and SPHK2 ( $K_i$ s = 0.73 and 0.9  $\mu$ M, respectively, using human recombinant kinases).<sup>1</sup> SLC5111312 binding is selective for Sphk2 over Sphk1 in mice ( $K_i$ s = 1 and 20  $\mu$ M, respectively) but not rat ( $K_i$ s = 1.1 and 0.8  $\mu$ M, respectively).<sup>2</sup> It decreases cell-associated sphingosine-1-phosphate (S1P) and increases sphingosine in U937 monocytic leukemia cells at concentrations of 0.1 and 0.3  $\mu$ M. SLC5111312 (10 mg/kg) also decreases S1P *in vivo* in *Sphk1*<sup>-/-</sup> but not in *Sphk2*<sup>-/-</sup> mice and in rat, showing a functional selectivity for Sphk2 in mice.

### References

- Congdon, M.D., Kharel, Y., Brown, A.M., *et al.* Structure-activity relationship studies and molecular modeling of naphthalene-based sphingosine kinase 2 inhibitors. *ACS Med. Chem. Lett.* **7**(3), 229-234 (2016).
- Kharel, Y., Morris, E.A., Congdon, M.D., *et al.* Sphingosine kinase 2 inhibition and blood sphingosine 1-phosphate levels. *J. Pharmacol. Exp. Ther.* **355**(1), 23-31 (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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