# **PRODUCT** INFORMATION



A-971432

Item No. 25326

CAS Registry No.:	1240308-45-5
Formal Name:	1-[[4-[(3,4-dichlorophenyl)methoxy]phenyl] methyl]-3-azetidinecarboxylic acid
MF:	C18H17Cl2NO3 HO
FW:	366.2
Purity:	≥98% 0
UV/Vis.:	$\lambda_{max}$ : 230 nm
Supplied as:	A crystalline solid
Storage:	-20°C CI
Stability:	≥4 years
Information represents	the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## Laboratory Procedures

A-971432 is supplied as a crystalline solid, which should be purged with an inert gas. A stock solution may be made by dissolving the A-971432 in the solvent of choice. A-971432 is slightly soluble in chloroform.

## Description

A-971432 is a sphingosine-1-phosphate receptor 5 ( $S1P_5$ ) agonist that is selective for  $S1P_5$  over  $S1P_1$  and  $S1P_3$  (IC<sub>50</sub>s = 0.006, 0.362, and >10  $\mu$ M, respectively).<sup>1</sup> It inhibits forskolin-induced cAMP production in CHO cells expressing S1P<sub>5</sub> (EC<sub>50</sub> = 4.1 nM). A-971432 (1  $\mu$ M) increases electrical resistance of hCMEC/D3 cells in an in vitro blood-brain barrier model, indicating enhanced barrier integrity, and attenuates blood-brain barrier leakage in an R6/2 transgenic mouse model of Huntington's disease when administered at a dose of 0.1 mg/kg.<sup>1.2</sup> A-971432 (0.1 mg/kg per day, i.p.) decreases the number of errors made in a horizontal ladder task and increases latency to fall in the rotarod test in R6/2 mice. It also increases spontaneous alternation in the t-maze in aged mice when administered at a dose of 0.1 mg/kg.<sup>1</sup>

# References

- 1. Hobson, A.D., Harris, C.M., van der Kam, E.L., et al. Discovery of A-971432, an orally bioavailable selective sphingosine-1-phosphate receptor 5 ( $S1P_{s}$ ) agonist for the potential treatment of neurodegenerative disorders. J. Med. Chem. 58(23), 9154-9170 (2015).
- 2. Di Pardo, A., Castaldo, S., Amico, E., et al. Stimulation of S1PR<sub>5</sub> with A-971432, a selective agonist, preserves blood-brain barrier integrity and exerts therapeutic effect in an animal model of Huntington's disease. Hum. Mol. Genet. 27(14), 2490-2501 (2018).

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.

#### WARRANTY AND LIMITATION OF REMEDY

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