PRODUCT INFORMATION



ARN726

Item No. 24259

CAS Registry No.: 1628343-77-0

Formal Name: N-[(3S)-2-oxo-3-azetidinyl]-carbamic

acid, 4-cyclohexylbutyl ester

MF: $C_{14}H_{24}N_2O_3$ FW: 268.4 **Purity:** ≥95%

Supplied as: A crystalline 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

ARN726 is supplied as a crystalline solid. A stock solution may be made by dissolving the ARN726 in the solvent of choice, which should be purged with an inert gas. ARN726 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of ARN726 in these solvents is approximately

ARN726 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ARN726 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. ARN726 has a solubility of approximately 0.20 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

ARN726 is an inhibitor of N-acylethanolamine acid amidase (NAAA; $IC_{50}s = 27$ and 63 nM for the human and rat enzyme, respectively).1 It is selective for NAAA over fatty acid amide hydrolase (FAAH) and acid ceramidase (IC₅₀s = >100 and 12.5 µM, respectively), as well as a panel of 28 lipid metabolismand inflammation-related enzymes at 10 μM. ARN726 (1-30 mg/kg) decreases lung myeloperoxidase activity and pleural exudate TNF- α levels in a mouse model of carrageenan-induced lung inflammation. It inhibits NAAA and reverses complete Freund's adjuvant-induced decreases in palmitoyl ethanolamide (PEA; Item No. 90350) and oleoyl ethanolamide (OEA; Item No. 90265) levels in inflamed paw tissue in a rat model of arthritis.2

References

- 1. Ribeiro, A., Pontis, S., Mengatto, L., et al. A potent systematically active N-acylethanolamine acid amidase inhibitor that suppresses inflammation and human macrophage activation. Chem. Biol. 10(8), 1838-1846
- 2. Bonezzi, F.T., Sasso, O., Pontis, S., et al. An important role for N-acylethanolamine acid amidase in the complete Freund's adjuvant rat model of arthritis. J. Pharmacol. Exp. Ther. 356(3), 656-663 (2016).

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

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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