

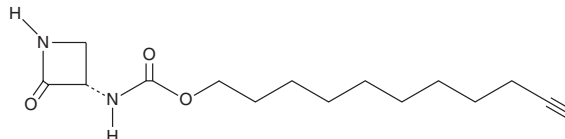
PRODUCT INFORMATION



ARN14686

Item No. 24261

CAS Registry No.: 1628345-10-7
Formal Name: N-[(3S)-2-oxo-3-azetidiny]-carbamic acid, 10-undecyn-1-yl ester
Synonym: Click Tag™ ARN14686
MF: C₁₅H₂₄N₂O₃
FW: 280.4
Purity: ≥98%
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

ARN14686 is supplied as a crystalline solid. A stock solution may be made by dissolving the ARN14686 in the solvent of choice. ARN14686 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of ARN14686 in ethanol is approximately 1 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Description

ARN14686 is an activity-based affinity probe for the detection of N-acylethanolamine acid amidase (NAAA) using click chemistry.¹ It binds covalently to the N-terminal cysteine of catalytically active NAAA to form a thioester adduct. ARN14686 inhibits the hydrolysis of the NAAA substrate PAMCA in HEK293 cells (IC₅₀s = 6 and 13 nM for human and rat recombinant enzymes, respectively) and is selective for NAAA over acid ceramidase (IC₅₀ = 1,200 nM for the rat enzyme). It labels NAAA in HEK293 cells overexpressing human or rat recombinant NAAA and, when used at concentrations of 1 and 10 μM, in rat lung lysosomal fractions *in vitro*. It also detects NAAA in lung lysosomal fractions following intravenous administration at a dose of 10 mg/kg in rats. ARN14686 (3 mg/kg) has been used to determine that catalytically active NAAA is present in inflamed rat paw in a complete Freund's adjuvant model of inflammation.²

References

1. Romeo, E., Ponzano, S., Armirotti, A., *et al.* Activity-based probe for N-acylethanolamine acid Amidase. *ACS Chem Biol.* **10(9)**, 2057-2064 (2015).
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.

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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