

PRODUCT INFORMATION

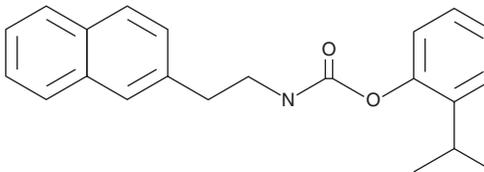


JW 480

Item No. 10879

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CAS Registry No.: 1354359-53-7
Formal Name: 2-isopropylphenyl(2-(naphthalen-2-yl)ethyl)carbamate
MF: C₂₂H₂₃NO₂
FW: 333.4
Purity: ≥98%
UV/Vis.: λ_{max}: 225, 268 nm
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

JW 480 is supplied as a crystalline solid. A stock solution may be made by dissolving the JW 480 in the solvent of choice, which should be purged with an inert gas. JW 480 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of JW 480 in these solvents is approximately 30 mg/ml.

JW 480 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, JW 480 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. JW 480 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

The transmembrane enzyme KIAA1363 (also known as AADAACL1) controls the production of the monoalkylglycerol ether (MAGE) class of neutral ether lipids (NELs) in cancer cells.¹ Hyperactivity of this 2-acetyl MAGE hydrolase is associated with tumor cell migration, invasion, survival, and growth.² JW 480 acts as a potent, selective inhibitor of KIAA1363 (IC₅₀s = 20 nM in mouse brain membrane proteomes and 6-12 nM in human PC3 prostate cancer cell proteomes), showing little cross reactivity with hormone-sensitive lipase, acetylcholinesterase, or other serine hydrolases.² JW 480 is active *in vivo*, reducing PC3 tumor xenograft growth in immune-deficient SCID mice at an oral dose of 80 mg/kg.²

References

1. Chiang, K.P., Niessen, S., Saghatelian, A., *et al.* An enzyme that regulates ether lipid signaling pathways in cancer annotated by multidimensional profiling. *Chem. Biol.* **13**(10), 1041-1050 (2006).
2. Chang, J.W., Nomura, D.K., and Cravatt, B.F. A potent a selective inhibitor of KIAA1363/AADAACL1 that impairs prostate cancer pathogenesis. *Chem. Biol.* **18**(4), 476-84 (2011).

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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