

# Product Information

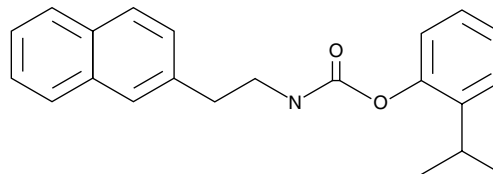


## JW 480

Item No. 10879

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**CAS Registry No.:** 1354359-53-7  
**Formal Name:** 2-isopropylphenyl(2-(naphthalen-2-yl)ethyl)carbamate  
**MF:** C<sub>22</sub>H<sub>23</sub>NO<sub>2</sub>  
**FW:** 333.4  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** λ<sub>max</sub>: 225, 268 nm



### Laboratory Procedures

For long term storage, we suggest that JW 480 be stored as supplied at -20°C. It should be stable for at least two years.

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

The transmembrane enzyme KIAA1363 (also known as AADACL1) controls the production of the monoalkylglycerol ether (MAGE) class of neutral ether lipids (NELs) in cancer cells.<sup>1</sup> Hyperactivity of this 2-acetyl MAGE hydrolase is associated with tumor cell migration, invasion, survival, and growth.<sup>2</sup> JW 480 acts as a potent, selective inhibitor of KIAA1363 (IC<sub>50</sub>s = 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.<sup>2</sup> JW 480 is active *in vivo*, reducing PC3 tumor xenograft growth in immune-deficient SCID mice at an oral dose of 80 mg/kg.<sup>2</sup>

### References

- 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**, 1041-1050 (2006).
- Chang, J.W., Nomura, D.K., and Cravatt, B.F. A potent a selective inhibitor of KIAA1363/AADACL1 that impairs prostate cancer pathogenesis. *Chem. Biol.* **18**(4), 476-84 (2011).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/10879](http://www.caymanchem.com/catalog/10879)

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

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