

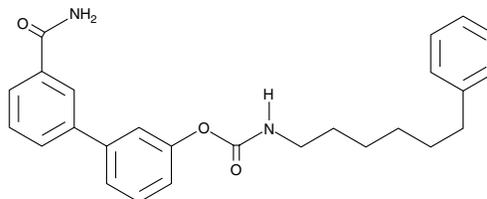
# Product Information



## JP83

Item No. 10008660

**CAS Registry No.:** 887264-44-0  
**Formal Name:** 3'-carbamoyl-biphenyl-3-yl-hexylphenylcarbamate  
**MF:** C<sub>26</sub>H<sub>28</sub>N<sub>2</sub>O<sub>3</sub>  
**FW:** 416.5  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid



### Laboratory Procedures

For long term storage, we suggest that JP83 be stored as supplied at -20°C. It should be stable for at least two years.

JP83 is supplied as a crystalline solid. A stock solution may be made by dissolving the JP83 in an organic solvent purged with an inert gas. JP83 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of JP83 in ethanol is approximately 1 mg/ml and approximately 30 mg/ml in DMSO and DMF.

JP83 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, JP83 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. JP83 has a solubility of approximately 0.25 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

The enzyme fatty acyl amide hydrolase (FAAH) is widely expressed in brain and other tissues, and is capable of hydrolyzing anandamide (AEA) and other simple esters and amides with long unsaturated acyl chains.<sup>1</sup> JP83 is an irreversible FAAH inhibitor of the carbamate class with an IC<sub>50</sub> of 14 nM for the human recombinant enzyme when tested using radiolabeled oleamide as the substrate.<sup>2</sup>

### References

1. Zhang, Y.H., Zhang, G.Y., Mollat, P., *et al.* Purification, characterization, and cellular localization of the 100-kDa human placental GTPase-activating protein. *J. Biol. Chem.* **268**, 18875-18881 (1993).
2. Alexander, J.P. and Cravatt, B.F. Mechanism of carbamate inactivation of FAAH: Implications for the design of covalent inhibitors and *in vivo* functional probes for enzymes. *Chemistry & Biology* **12**, 1179-1187 (2005).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/10008660](http://www.caymanchem.com/catalog/10008660)

**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

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery.**

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Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

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