

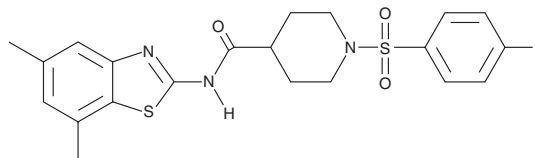
# PRODUCT INFORMATION



VU534

Item No. 39744

**CAS Registry No.:** 923509-20-0  
**Formal Name:** N-(5,7-dimethyl-2-benzothiazolyl)-1-[(4-fluorophenyl)sulfonyl]-4-piperidinecarboxamide  
**Synonyms:** N-Acyl-Phosphatidylethanolamine-Hydrolyzing Phospholipase D Activator 534, NAPE-PLD Activator 534



**MF:** C<sub>21</sub>H<sub>22</sub>FN<sub>3</sub>O<sub>3</sub>S<sub>2</sub>  
**FW:** 447.5  
**Purity:** ≥98%  
**Supplied as:** A 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

VU534 is supplied as a solid. A stock solution may be made by dissolving the VU534 in the solvent of choice, which should be purged with an inert gas. VU534 is soluble (≥10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in methanol.

## Description

VU534 is an activator of N-acyl-phosphatidylethanolamine-hydrolyzing phospholipase D (NAPE-PLD), which hydrolyzes NAPEs into N-acyl ethanolamines (NAEs) and phosphatidic acid.<sup>1</sup> It increases NAPE-PLD activity in cell-free assays (EC<sub>50</sub>s = 0.3 and 0.93 μM for the recombinant mouse and human enzymes, respectively). VU534 (20 μM) also increases NAPE-PLD activity in RAW 264.7 cells, an effect that can be blocked by the NAPE-PLD inhibitor bithionol (Item No. 21844), and in HepG2 cells (EC<sub>50</sub> = 1.5 μM). It also inhibits soluble epoxide hydrolase (sEH) with a maximal inhibition of 55% and weakly inhibits fatty acid amide hydrolase (FAAH). VU534 (10 μM) increases efferocytosis in isolated wild-type mouse bone marrow-derived macrophages (BMDMs) but not in BMDMs isolated from *Napepld*<sup>-/-</sup> mice.

## References

1. Zarrow, J.E., Alli-Oluwafuyi, A.M., Youwakim, C.M., *et al.* Small molecule activation of NAPE-PLD enhances efferocytosis by macrophages. *ACS Chem. Biol.* **18**(8), 1891-1904 (2023).

### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 06/24/2024

## CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM