

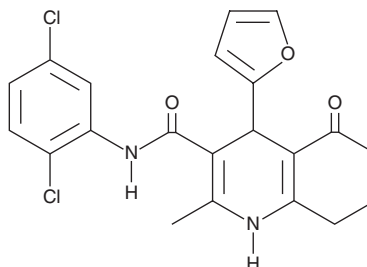
# PRODUCT INFORMATION



**AR-420626**

Item No. 17531

**CAS Registry No.:** 1798310-55-0  
**Formal Name:** N-(2,5-dichlorophenyl)-4-(2-furanyl)-1,4,5,6,7,8-hexahydro-2-methyl-5-oxo-3-quinolinecarboxamide  
**MF:** C<sub>21</sub>H<sub>18</sub>Cl<sub>2</sub>N<sub>2</sub>O<sub>3</sub>  
**FW:** 417.3  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 212, 262, 358 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

AR-420626 is supplied as a crystalline solid. A stock solution may be made by dissolving the AR-420626 in the solvent of choice, which should be purged with an inert gas. AR-420626 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of AR-420626 in these solvents is approximately 5 and 2 mg/ml, respectively.

AR-420626 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AR-420626 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. AR-420626 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

Free fatty acid receptor 3 (FFAR3; GPR41) is a G protein-coupled receptor activated by short chain fatty acids (SCFAs). It is expressed in adipose tissue, the gastrointestinal tract, and the peripheral nervous system, and it is involved in SCFA-dependent energy regulation.<sup>1</sup> AR-420626 is a selective agonist of FFAR3 (GPR41; IC<sub>50</sub> = 117 nM) that does not activate the related receptor FFAR2 (GPR43) at concentrations up to 100 μM.<sup>2</sup> At 10 μM, it can stimulate a 1.26-fold increased release of glucagon-like peptide-1 from colonic crypt cultures.<sup>3</sup>

## References

1. Inoue, D., Tsujimoto, G., and Kimura, I. Regulation of energy homeostasis by GPR41. *Front. Endocrinol. (Lausanne)* **5**, 1-3 (2014).
2. Engelstoft, M.S., Park, W., Sakata, I., et al. Seven transmembrane G protein-coupled receptor repertoire of gastric ghrelin cells. *Mol. Metab.* **2(4)**, 376-392 (2013).
3. Nøhr, M.K., Pedersen, M.H., Gille, A., et al. GPR41/FFAR3 and GPR43/FFAR2 as cosensors for short-chain fatty acids in enteroendocrine cells vs FFAR3 in enteric neurons and FFAR2 in enteric leukocytes. *Endocrinology* **154(10)**, 3552-3564 (2013).

### 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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## 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