

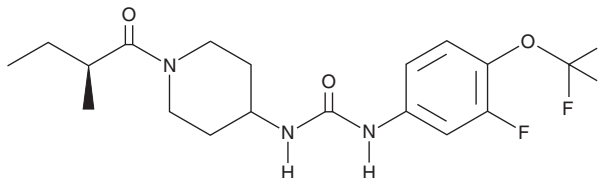
# PRODUCT INFORMATION



**EC5026**

Item No. 33634

**CAS Registry No.:** 1809885-32-2  
**Formal Name:** N-[3-fluoro-4-(trifluoromethoxy)phenyl]-N'-[1-[(2S)-2-methyl-1-oxobutyl]-4-piperidiny]-urea  
**MF:** C<sub>18</sub>H<sub>23</sub>F<sub>4</sub>N<sub>3</sub>O<sub>3</sub>  
**FW:** 405.4  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 241 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## Laboratory Procedures

EC5026 is supplied as a solid. A stock solution may be made by dissolving the EC5026 in the solvent of choice, which should be purged with an inert gas. EC5026 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of EC5026 in these solvents is approximately 30 mg/ml.

EC5026 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, EC5026 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. EC5026 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

EC5026 is an inhibitor of soluble epoxide hydrolase (sEH; K<sub>i</sub> = <0.05 nM).<sup>1</sup> *In vivo*, EC5026 (10 mg/kg) increases conditioned place preference for the EC5026-paired chamber, indicating analgesia, in a rodent model of neuropathic pain. It also prevents withdrawal pain in morphine-dependent rats and increases the mechanical paw withdrawal threshold in a rat model of neuropathic pain induced by chronic constriction injury (CCI).<sup>2</sup>

## References

1. Lee, K.S.S., Ng, J.C., Yang, J., *et al.* Preparation and evaluation of soluble epoxide hydrolase inhibitors with improved physical properties and potencies for treating diabetic neuropathic pain. *Bioorg. Med. Chem.* **28(22)**, 115735 (2020).
2. Hammock, B.D., McReynolds, C.B., Wagner, K., *et al.* Movement to the clinic of soluble epoxide hydrolase inhibitor EC5026 as an analgesic for neuropathic pain and for use as a nonaddictive opioid alternative. *J. Med. Chem.* **64(4)**, 1856-1872 (2021).

### 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](http://WWW.CAYMANCHEM.COM)