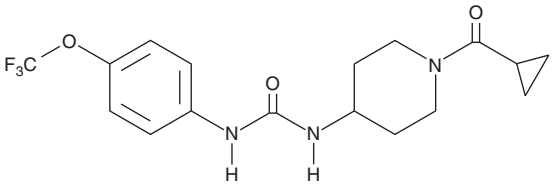
PRODUCT INFORMATION

CAY10640

Item No. 10642

CAS Registry No.:	1208549-68-1
Formal Name:	N-[1-(cyclopropylcarbonyl)-4-piperidinyl]-N'-[4-(trifluoromethoxy)phenyl]-urea
Synonyms:	sEHi, Soluble Epoxide Hydrolase Inhibitor
MF:	$C_{17}H_{20}F_3N_3O_3$
FW:	371.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 241, 278 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

CAY10640 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10640 in the solvent of choice, which should be purged with an inert gas. CAY10640 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of CAY10640 in ethanol is approximately 2 mg/ml and approximately 5 mg/ml in DMSO and DMF.

CAY10640 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10640 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CAY10640 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Soluble epoxide hydrolase (sEH) inhibitors have important therapeutic use by increasing the *in vivo* concentration of EETs and other fatty acid epoxides, resulting in anti-inflammatory, antihypertensive, neuroprotective, and cardioprotective effects. CAY10640 is a 1-aryl-3-(1-acylpiperidin-4-yl)urea analog that inhibits recombinant human and mouse sEH with IC_{50} values both equal to 0.4 nM.[1] CAY10640 demonstrates a 1,000-fold increase in potency compared to morphine in reducing hyperalgesia in an *in vivo* carrageenan-induced inflammatory pain model.[1]

Reference

1. Rose, T.E., Morisseau, C., Liu, J.Y., *et al.* 1-aryl-3-(1-acylpiperidin-4-yl)urea inhibitors of human and murine soluble epoxide hydrolase: Structure-activity relationships, pharmacokinetics, and reduction of inflammatory pain. *J. Med. Chem.* **53(19)**, 7067-7075 (2010).

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