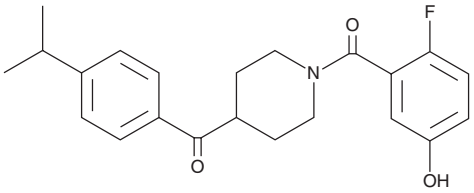
PRODUCT INFORMATION

MAGL Inhibitor Compound 23

Item No. 27348

CAS Registry No.:	2324160-91-8
Formal Name:	(1-(2-fluoro-5-hydroxybenzoyl)piperidin-4-yl)(4-isopropylphenyl)methanone
MF:	$C_{22}H_{24}FNO_3$
FW:	369.4
Purity:	≥95%
UV/Vis.:	λ_{max}: 254 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

MAGL inhibitor compound 23 is supplied as a crystalline solid. A stock solution may be made by dissolving the MAGL inhibitor compound 23 in the solvent of choice, which should be purged with an inert gas. MAGL inhibitor compound 23 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MAGL inhibitor compound 23 in these solvents is approximately 2.5, 20 and 25 mg/ml, respectively.

MAGL inhibitor compound 23 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MAGL inhibitor compound 23 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. MAGL inhibitor compound 23 has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

MAGL inhibitor compound 23 is an inhibitor of monoacylglycerol lipase (MAGL; IC_{50} = 80 nM).[1] It is selective for MAGL over cannabinoid receptor 1 (CB_1), CB_2, fatty acid amide hydrolase (FAAH), α/β-hydrolase domain-containing protein 6 (ABHD6), and ABHD12 (IC_{50}s = >10 µM). MAGL inhibitor compound 23 inhibits the growth of HCT116, MDA-MB-231, Caov-3, OVCAR-3, and SKOV3 cells (IC_{50}s = 21, 7.9, 25, 57, and 15 µM, respectively) but not MRC5 cells (IC_{50} = >100 µM). It increases the levels of 2-arachidonoyl glycerol (2-AG; Item No. 62160) in mouse brain and plasma when administered at a dose of 50 mg/kg.

Reference

1. Granchi, C., Lapillo, M., Glasmacher, S., *et al.* Optimization of a benzoylpiperidine class identifies a highly potent and selective reversible monoacylglycerol lipase (MAGL) inhibitor. *J. Med. Chem.* **62(4)**, 1932-1958 (2019).

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