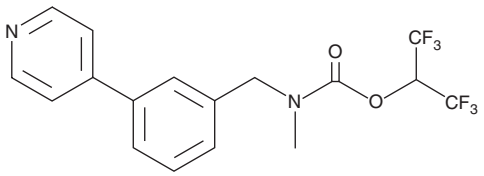
PRODUCT INFORMATION

JW 618

Item No. 11790

CAS Registry No.:	1416133-88-4
Formal Name:	N-methyl-N-[[3-(4-pyridinyl) phenyl]methyl]-, 2,2,2-trifluoro-1-(trifluoromethyl)ethyl ester-carbamic acid
MF:	$C_{17}H_{14}F_6N_2O_2$
FW:	392.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 256 nm
Supplied as:	A solution in methyl acetate
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

JW 618 is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of JW 618 in these solvents is approximately 16, 5, and 10 mg/ml, respectively.

JW 618 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of JW 618 should be diluted with the aqueous buffer of choice. JW 618 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Endocannabinoids such as 2-arachidonoyl glycerol (2-AG) and arachidonoyl ethanolamide are biologically active lipids that are involved in a number of synaptic processes including activation of cannabinoid receptors. Monoacylglycerol lipase (MAGL) is a serine hydrolase responsible for the hydrolysis of 2-AG to arachidonic acid and glycerol, thus terminating its biological function. JW 618 is an inhibitor of MAGL that displays IC_{50} values of 123, 385, and 6.9 nM for inhibition of MAGL in mouse, rat, and human brain membranes, respectively.[1] JW 618 is selective for MAGL, requiring much higher concentrations to effectively inhibit fatty acid amide hydrolase activity (IC_{50}s all > 50 µM for mouse, rat, and human brain membranes).[1]

Reference

1. Chang, J.W., Niphakis, M.J., Lum, K.M., *et al*. Highly selective inhibitors of monoacylglycerol lipase bearing a reactive group that is bioisosteric with endocannabinoid substrates. *Chem. Biol.* **19**, 1-10 (2012).

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, 11/21/2017

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