Product Data Sheet

Product Name: SK1-I
Cat. No.: GC61597

Chemical Properties

Cas. No.	1072443-89-0		
SMILES	OC[C@H]([C@H](/C=C/C1=CC=C(C=C1)CCCCC)O)NC		
Formula	$C_{17}H_{27}NO_2$	M.Wt	277.4
Solubility		Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	SK1-I		

Background

SK1-I (BML-258), an analog of sphingosine, is an isozyme-specific competitive SPHK1 inhibitor with a Ki value of 10 μM[1]. SK1-I shows no activity at SPHK1 PKCα, PKCδ, PKA, AKT1, ERK1, EGFR, CDK2, IKKβ or CamK2β. SK1-I enhances autophagy and has antitumor activity[2].

SK1-I (0-10 μM; 24 hours) attenuates cancer cell growth and survival in a TP53-dependent manner in HCT116 cells and HCT116 cells bearing TP53 null cancer[2].SK1-I (0-20 μM; 12 hours) induces more CASP3 cleavage in HCT116 cells, compared to HCT116 cells lacking TP53, leading to a hallmark of apoptosis[2]. Cell Viability Assay[2] Cell Line: HCT116 cells and HCT116 cells bearing TP53 null cancer

Pre-treatment with SK1-I (BML-258; intraperitoneal (i.p.) injection; once; 24 hours prior to baseline mean arterial blood pressure (MAP) measurement; 75 mg/kg) before anandamide (i.v. injection; two doses; 1 and 10 mg/kg) significantly decreases the hypotensive response[3]. Animal Model: Male C57BL/6 mice (24?±?3.5?g) [3]

[1]. Melissa R Pitman, et al. Inhibitors of the sphingosine kinase pathway as potential

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

therapeutics. Curr Cancer Drug Targets. 2010 Jun;10(4):354-67. [2]. Santiago Lima, et al. TP53 is required for BECN1- and ATG5-dependent cell death induced by sphingosine kinase 1 inhibition. Autophagy. 2018;14(6):942-957. [3]. Fiona H Greig, et al. Requirement for sphingosine kinase 1 in mediating phase 1 of the hypotensive response to anandamide in the anaesthetised mouse. Eur J Pharmacol. 2019 Jan 5;842:1-9.

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Address: 10292 Central Ave. #205, Montclair, CA, USA