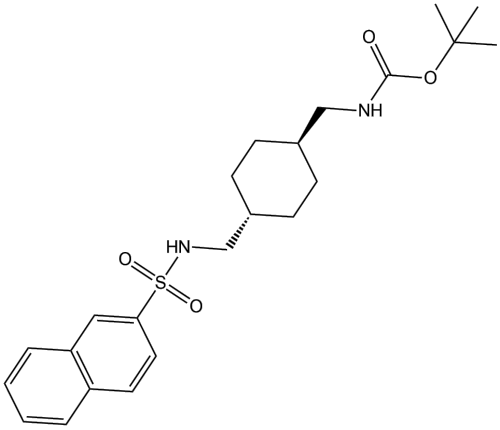
Product Data Sheet

Product Name: hACC2-IN-1
Cat. No.: GC27869

Chemical Properties

Cas. No.	192323-14-1		
Chemical Name	Carbamic acid, N-[[trans-4-[[(2-naphthalenylsulfonyl)amino]methyl]cyclohexyl]methyl]-, 1,1-dimethylethyl ester		
SMILES	CC(C)(OC(NC[C@H]1CC[C@@H](CC1)CNS(=O)(C2=CC3=C(C=CC=C3)C=C2)=O)=O)C		
Formula	$C_{23}H_{32}N_2O_4S$	M.Wt	432.58
Solubility	DMSO : 100 mg/mL (231.17 mM; Need ultrasonic)	Storage	-20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C 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



Background

hACC2-IN-1 is a potent acetyl-CoA carboxylase 2 (ACC2) inhibitor, with an IC_{50} value of 2.5 μM

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(hACC2). hACC2-IN-1 could be used for obesity research[1].
In Vitro, ACC2 isoform, presents on the mitochondrial surface, inhibits carnitine palmitoyl transferase 1 (CPT-1) and converts acetyl-CoA into malonylCoA for de novo lipogenesis in the cytosol[1].
ACCs inhibition will change cellular substrate and favour lipid oxidation, thus preventing deleterious lipids from accumulating in oxidative tissue such as muscle, heart and liver[1].
hACC2-IN-1 shows good potency against the human ACC2 (hACC2) enzyme [1].

References:
[1]. Bengtsson C, et al. Design of small molecule inhibitors of acetyl-CoA carboxylase 1 and 2 showing reduction of hepatic malonyl-CoA levels in vivo in obese Zucker rats. Bioorg Med Chem. 2011 May 15;19(10):3039-53.

Caution: Product has not been fully validated for medical applications. For research use only.
Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA