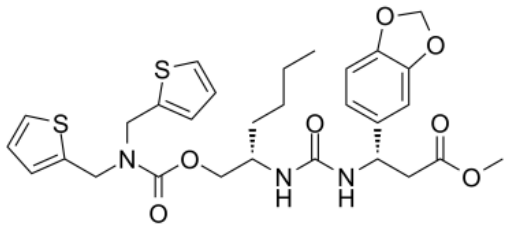
Product Data Sheet

Product Name: THI0019
Cat. No.: GC61332

Chemical Properties

Cas. No.	1378532-99-0		
SMILES	O=C(N[C@@H](CCCC)COC(N(CC1=CC=CS1)CC2=CC=CS2)=O)N[C@H](C3=CC=C4C(OCO4)=C3)CC(OC)=O		
Formula	$C_{29}H_{35}N_3O_7S_2$	M.Wt	601.73
Solubility		Storage	Store at -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

THI0019 is a potent integrin α4β1 (VLA-4) agonist with an EC50 range of 1-2 μM. THI0019 induces stem/progenitor cells adhesion. THI0019 also regulates adhesion mediated by α4β7, α5β1 and αLβ2[1].

In cell adhesion assays in which Jurkat cells bound to CS1-conjugated BSA, THI0019 shows a dose-dependent enhancement in cell binding with an EC50 of 1.7 μM. When VCAM-1 is used as the

Product Data Sheet

ligand, THI0019 induces an even more pronounced 100-fold increase in Jurkat cell binding, with an EC50 of 1.2 μM. THI0019 induces a dose-dependent increase in EPC binding to VCAM-1 (EC50 of 3.7 μM). THI0019 facilitates the rolling and spreading of cells on VCAM-1 and the migration of cells toward SDF-1α[1].

[1]. Peter Vanderslice, et al. Small molecule agonist of very late antigen-4 (VLA-4) integrin induces progenitor cell adhesion. J Biol Chem. 2013 Jul 5;288(27):19414-28.