

THI0019

Chemical Properties

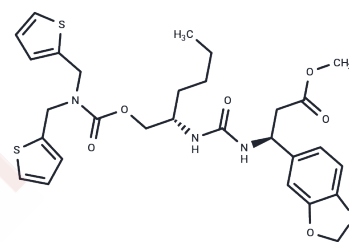
CAS No. : 1378532-99-0

Formula: C₂₉H₃₅N₃O₇S₂

Molecular Weight: 601.73

Appearance:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	THI0019 is a highly potent agonist of the integrin $\alpha 4 \beta 1$ (VLA-4) receptor, with an EC 50 range of 1-2 μ M. It effectively promotes the adhesion of stem/progenitor cells. Furthermore, THI0019 successfully modulates adhesion processes mediated by $\alpha 4 \beta 7$, $\alpha 5 \beta 1$, and $\alpha L \beta 2$ integrins.
Targets(IC50)	Others
In vitro	In assays evaluating Jurkat cell adhesion, when bound to CS1-conjugated BSA, THI0019 enhanced cell binding in a dose-dependent manner, achieving an effective concentration (EC 50) of 1.7 μ M. A more significant, 100-fold increase in Jurkat cell attachment was observed when using VCAM-1 as the ligand, with THI0019 demonstrating an EC 50 of 1.2 μ M. Additionally, THI0019 increased EPC binding to VCAM-1 in a dose-dependent fashion (EC 50 of 3.7 μ M). It also augmented cell rolling and spreading on VCAM-1 and enhanced cell migration toward SDF-1 α [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6619 mL	8.3094 mL	16.6187 mL
5 mM	0.3324 mL	1.6619 mL	3.3237 mL
10 mM	0.1662 mL	0.8309 mL	1.6619 mL
50 mM	0.0332 mL	0.1662 mL	0.3324 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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