

Product Data Sheet

Product Name: PZ-128
Cat. No.: GC61226

Chemical Properties

Cas. No. 371131-16-7

SMILES CCCCCCCCCCCCCCCC(N[C@@H](CCCCN)C(N[C@@H](CCCCN)C(N[C@@H](CO)C(N[C@@H](CCCNC(N)=N)C(N[C@@H](C)C(N[C@@H](CC(C)C)C(N[C@@H](C(N=O)CC1=CC=CC=C1)=O)=O)=O)=O)=O)=O)=O

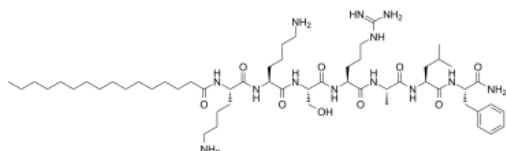
Formula C₅₅H₉₉N₁₃O₉ M.Wt 1086.46

Solubility DMSO : 100 mg/mL (92.04 mM; Need ultrasonic) 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

PZ-128 (P1pal-7), a cell-penetrating lipopeptide pepducin, is a first-in-class, specific and reversible protease-activated receptor-1 (PAR1) antagonist. PZ-128 targets the receptor-G-protein interface on the inside surface of platelets. PZ-128 has antiplatelet, anti-metastatic, anti-angiogenic and anticancer effects[1][2][3][4].

Caution: Product has not been fully validated for medical applications. For research use only.

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PZ-128 (P1pal-7; 3 μ M) blocks 90-94% of OVCAR-4 migration toward human ovarian ascites and fibroblast conditioned media. The OVCAR4-treated peritoneal fibroblast conditioned media elicits a 2.2-fold increase in endothelial barrier permeability which could be nearly completely inhibited by PZ-128[1].

PZ-128 (P1pal-7; 10 mg/kg; intraperitoneal injection; every other day; for 6 weeks) treatment significantly reduces mean ascites fluid volume by 60%. PZ-128 treatment also causes a highly significant 84-96% reduction in blood vessel density in both the center and edge of the OVCAR-4 tumors[1]. Animal Model: Female NCR Nu/Nu mice (5-7 weeks) injected with OVCAR-4 or SKOV-3 cells[1]

[1]. Anika Agarwal, et al. Targeting a metalloprotease-PAR1 signaling system with cell-penetrating pepducins inhibits angiogenesis, ascites, and progression of ovarian cancer. *Mol Cancer Ther.* 2008 Sep;7(9):2746-57. [2]. Lidija Covic, et al. Protease-Activated Receptor 1 as Therapeutic Target in Breast, Lung, and Ovarian Cancer: Pepducin Approach. *Int J Mol Sci.* 2018 Jul 31;19(8):2237. [3]. Ping Zhang, et al. Suppression of arterial thrombosis without affecting hemostatic parameters with a cell-penetrating PAR1 pepducin. *Circulation.* 2012 Jul 3;126(1):83-91. [4]. Paul A Gurbel, et al. Cell-Penetrating Pepducin Therapy Targeting PAR1 in Subjects With Coronary Artery Disease. *Arterioscler Thromb Vasc Biol.* 2016 Jan;36(1):189-97.

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