Product Data Sheet

Product Name: Thrombin Receptor Agonist Peptide
Cat. No.: GC10140

Chemical Properties

Cas. No.	137339-65-2
SMILES	CC(C)CC(C(=O)NC(CC(C)C)C(=O)NC(CCCNC(=N)N)C(=O)NC(CC(=O)N)C(=O)N1CCCC1C(=O)NC(CC(=O)N)C(=O)NC(CC(=O)O)C(=O)
Formula	$C_{81}H_{118}N_{20}O_{23}$
Solubility	Soluble to 0.90 mg/ml in sterile water
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
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.
Structure	Thrombin Receptor Agonist Peptide

Background

Sfllrnpndkyepf is a synthetic thrombin receptor agonist peptide.

Thrombin cleaves its receptor at arginine-41, resulting in the generation of a new receptor NH2-terminus with the sequence Sfllrnpndkyepf. This peptide (TRP-14) may signal a variety of thrombin's responses[1]. Sfllrnpndkyepf, representing the 14 amino acids starting with Ser-42 of the human thrombin receptor, was found to mimic the effect of thrombin on platelets. Cleavage of the human platelet thrombin receptor by thrombin exposes a new N-terminal which acts as a putative tethered ligand. Sfllrnpndkyepf, corresponding to the new N-terminal region, activates and induces platelet aggregation and serotonin secretion. Sfllrnpndkyepf is the minimal peptide length which retains full activity in inducing [14C]serotonin secretion[2]. TRAP induces rapid morphological changes in HUVECs, with marked increase in the release of prostacyclin, endothelin, platelet activating factor, tissue type plasminogen activator, and plasminogen activator inhibitor-1. Incubation of cells with TRAP also induces a rapid decrease in cell-surface thrombomodulin[3].

References:
[1]. Sugama Y, et al. Thrombin receptor 14-amino acid peptide mediates endothelial hyperadhesivity and neutrophil adhesion by P-selectin-dependent mechanism. Circ Res. 1992 Oct;71(4):1015-9.
[2]. Sabo T, et al. Structure-activity studies of the thrombin receptor activating peptide. Biochem Biophys Res Commun. 1992 Oct 30;188(2):604-10.
[3]. Maruyama Y, et al. Thrombin receptor agonist peptide decreases thrombomodulin activity in cultured human umbilical vein endothelial cells. Biochem Biophys Res Commun. 1994 Mar 30;199(3):1262-9.

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