Data Sheet

Product Name:	Sfllrnpndkyepf
Cat. No.:	CS-7005
CAS No.:	137339-65-2
Molecular Formula:	C81H118N20O23
Molecular Weight:	1739.92
Target:	Thrombin
Pathway:	Metabolic Enzyme/Protease
Solubility:	DMSO : 100 mg/mL (57.47 mM; Need ultrasonic); H2O : ≥ 50 mg/mL (28.74 mM)

BIOLOGICAL ACTIVITY:

Sfllrnpndkyepf is a synthetic **thrombin** receptor agonist peptide. **In Vitro:** 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 [^{14}C]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.

CAIndexNames:

L-Phenylalanine, L-seryl-L-phenylalanyl-L-leucyl-L-leucyl-L-arginyl-L-asparaginyl-L-prolyl-L-asparaginyl-L-α-aspartyl-L-lysyl-L-tyrosyl-L-α-glutamyl-L-prolyl-

SMILES:

[SFLLRNPNDKYEPF]

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA