Katacalcin TFA

Cat. No.:	HY-P0149A
Molecular Formula:	$C_{99}H_{155}F_3N_{34}O_{38}S_2$
Molecular Weight:	2550.62
Sequence:	Asp-Met-Ser-Ser-Asp-Leu-Glu-Arg-Asp-His-Arg-Pro-His-Val-Ser-Met-Pro-Gln-Asn-Ala-Asn
Sequence Shortening:	DMSSDLERDHRPHVSMPQNAN
Target:	Others
Pathway:	Others
Storage:	Sealed storage, away from moisture Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

BIOLOGICAL ACTIVITY

Description	Katacalcin TFA (PDN 21 TFA) is a potent plasma calcium-lowering peptide[1].
In Vitro	Katacalcin is a potent plasma calcium lowering peptide. Katacalcin belongs to the calcitonin family, that causes a rapid but short-lived drop in the level of calcium and phosphate in blood by promoting the incorporation of these ions in the bones[1]. Katacalcin (KC) belongs to a small family of polypeptides that are encoded by the calc-1 gene and also include calcitonin (CT) and procalcitonin NH2-terminal cleavage peptide (N-ProCT). Katacalcin pretreatment leads to a concentration-dependent decrease at concentrations between 1 amol/liter and 10 fmol/liter and is a more potent inhibitor of fMLP-induced chemotaxis than CT or procalcitonin (PCT). Katacalcin deactivates $CD14^+$ peripheral blood mononuclear cell (PBMC) chemotaxis not only toward N-formyl-Met-Leu-Phe (fMLP) but also toward other attractants of the chemokine family (heterologous deactivation) as well as toward PCT and CT. Pretreatment of $CD14^+$ PBMCs with Katacalcin also deactivates subsequent chemotaxis toward Katacalcin itself. Katacalcin elicites concentration-dependent migration of $CD14^+$ PBMC at concentrations from the atomolar to the micromolar range and deactivates attractant-induced chemotaxis. Katacalcin regulates human $CD14^+$ PBMC migration via signaling events involving protein kinase A-dependent cAMP pathways[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Hillyard CJ, et al. Katacalcin: a new plasma calcium-lowering hormone. Lancet. 1983 Apr 16;1(8329):846-8.

[2]. Kaneider NC, et al. Involvement of cyclic adenosine monophosphate-dependent protein kinase A and pertussis toxin-sensitive G proteins in the migratory response of human $CD14^+$ mononuclear cells tokatacalcin. J Bone Miner Res. 2002 Oct;17(10):187

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA