

## Katacalcin

## Chemical Properties

CAS No.:	85916-47-8
Formula:	C97H154N34O36S2
Molecular Weight:	2436.6
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

## Biological Description

Description	Katacalcin (PDN 21) is a potent plasma calcium-lowering peptide[1].
In vitro	<p>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-termil 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 elicits 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 sigling events involving protein kise A-dependent cAMP pathways[2].</p>

## Solubility Information

Solubility	H2O: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.41 mL	2.052 mL	4.104 mL
5 mM	0.082 mL	0.41 mL	0.821 mL
10 mM	0.041 mL	0.205 mL	0.41 mL
50 mM	0.008 mL	0.041 mL	0.082 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

## Reference

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

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