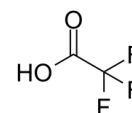


## Data Sheet

<b>Product Name:</b>	Katacalcin (TFA)
<b>Cat. No.:</b>	CS-0089608
<b>Molecular Formula:</b>	C99H155F3N34O38S2
<b>Molecular Weight:</b>	2550.62
<b>Target:</b>	Others
<b>Pathway:</b>	Others
<b>Solubility:</b>	H2O

DMSSDLERDHRPHVSMPQNAN



### BIOLOGICAL ACTIVITY:

Katacalcin TFA (PDN 21 TFA) is a potent plasma calcium-lowering peptide<sup>[1]</sup>. **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<sup>[1]</sup>. Katacalcin (KC) belongs to a small family of polypeptides that are encoded by the calc-1 gene and also include calcitonin (CT) and procalcitonin NH<sub>2</sub>-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<sup>+</sup> 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<sup>+</sup> PBMCs with Katacalcin also deactivates subsequent chemotaxis toward Katacalcin itself. Katacalcin elicits concentration-dependent migration of CD14<sup>+</sup> PBMC at concentrations from the atomolar to the micromolar range and deactivates attractant-induced chemotaxis. Katacalcin regulates human CD14<sup>+</sup> PBMC migration via signaling events involving protein kinase A-dependent cAMP pathways<sup>[2]</sup>.

### 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<sup>+</sup> mononuclear cells to katacalcin. *J Bone Miner Res*. 2002 Oct;17(10):1872-82.

### CAIndexNames:

Katacalcin (TFA)

### SMILES:

OC(C(F)(F)F)=O.[DMSSDLERDHRPHVSMPQNAN]

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

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