

Osteocalcin (1-49) (human) (trifluoroacetate salt)

Chemical Properties

CAS No. :	136461-80-8
Formula:	C ₂₆₉ H ₃₈₁ N ₆₇ O ₈₂ S ₂ CF ₃ COOH
Molecular Weight:	5929.4
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

Biological Description

Description	Osteocalcin (1-49) is a non-collagenous peptide that is secreted by osteoblasts and odontoblasts and comprises 1-2% of the total protein in bone. Secretion of osteocalcin (1-49) is stimulated by 1,25-dihydroxy vitamin D and plasma levels increase in diseases that induce dysregulated bone turnover such as osteoporosis, Paget's disease, and primary hyperparathyroidism. Osteocalcin (1-49) is positively correlated with insulin sensitivity and negatively correlated with high blood glucose levels in women.
Targets(IC50)	Endogenous Metabolite
In vitro	In vitro, osteocalcin induces chemotaxis of MDA-MB-231 breast cancer cells, human peripheral blood monocytes, and rat osteosarcoma cells with osteoblast-like characteristics. It is also expressed by vascular smooth muscle cells (VSMCs) displaying an osteoblast-like phenotype and has been positively associated with calcification of aortic tissue and heart valves in humans.

Solubility Information

Solubility	Formic Acid: 1 mg/mL (0.17 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.1687 mL	0.8433 mL	1.6865 mL
5 mM	0.0337 mL	0.1687 mL	0.3373 mL
10 mM	0.0169 mL	0.0843 mL	0.1687 mL
50 mM	0.0034 mL	0.0169 mL	0.0337 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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