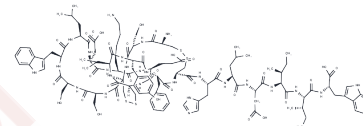


## Endothelin-2 (49-69), human

## Chemical Properties

CAS No. :	123562-20-9
Formula:	C115H160N26O32S4
Molecular Weight:	2546.92
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	Endothelin-2 (49-69), human (Human endothelin-2), is a 21-amino-acid vasoactive peptide that binds to G-protein-coupled receptors ET-RA and ET-RB.
Targets(IC50)	Endothelin Receptor,Others
In vitro	At nanomolar concentrations, Endothelin-2 significantly induces strong and persistent vasoconstriction, similar to the effects observed with other endothelins (EC50=0.52 nM) [1]. It functions as a potent chemoattractant specifically for macrophages and THP-1 monocytic cells, but does not attract freshly isolated monocytes. The chemotactic activity towards Endothelin-2 demonstrates a characteristic bell-shaped curve. Research utilizing endothelin receptor antagonists has revealed that the ET-RB receptor mediates the directed cell migration towards Endothelin-2. Moreover, the presence of Endothelin-2 in tumor environments suggests it plays a role in modifying macrophage behavior, leading to the accumulation of activated macrophages in hypoxic regions.
In vivo	Rats[1] For the assay of pressor activity, male Wistar rats weighing 300-350 g are anesthetized with urethane (1 g/kg i.p.) and pretreated with atropine (0.25 mg/kg i.v.), propranolol (1 mg/kg i.v.), and bunazocine (1 mg/kg i.v.). Additional maintenance doses (one-half of the initial doses) of the autonomic blockades are administered every 3-4 hr. Each animal is given only one bolus of Endothelin-2. 1 nM of Endothelin-2 in 50 $\mu$ L of buffer is bolus injected from a cannula inserted in the right femoral vein. The blood pressure is recorded from a cannula, which is placed in the right carotid artery and connected to a pressure transducer[1].

## Solubility Information

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

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	1mg	5mg	10mg
1 mM	0.3926 mL	1.9632 mL	3.9263 mL
5 mM	0.0785 mL	0.3926 mL	0.7853 mL
10 mM	0.0393 mL	0.1963 mL	0.3926 mL
50 mM	0.0079 mL	0.0393 mL	0.0785 mL

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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.

#### Reference

Grimshaw MJ, et al. Endothelin-2 is a macrophage chemoattractant: implications for macrophage distribution in tumors. *Eur J Immunol.* 2002 Sep;32(9):2393-400.

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