Product Data Sheet

Product Name: Endothelin-1 (1-15), amide, human
Cat. No.: GP10062

Chemical Properties

Cas. No.			
Formula	$C_{70}H_{109}N_{17}O_{23}S_5$	M.Wt	1717.04
Solubility	Soluble in water or 1% acetic acid	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			

Background

Endothelins are 21-amino acid vasoconstricting peptides produced primarily in the endothelium and have a key role in vascular homeostasis. Endothelin-1 is one of the there isoforms of endothelin (identified as ET-1, -2, -3) with varying regions of expression and binding to at least four known endothelin receptors, ETA, ETB1, ETB2 and ETC. [1]

Endothelins constrict blood vessels and raise blood pressure. They are normally kept in balance by other mechanisms, but when they are over-expressed, they contribute to high blood pressure (hypertension) and heart disease.

Endothelins are the most potent vasoconstrictors known. [2] In a healthy individual, a delicate balance between vasoconstriction and vasodilation is maintained by endothelin and other vasoconstrictors as well as nitric oxide, prostacyclin and other vasodilators. The ubiquitous distribution of endothelin peptides and receptors implicates its involvement in a wide variety of physiological and pathological processes in the body. Among numerous diseases potentially occurring from endothelin dysregulation are: several types of cancer [3], cerebral vasospasm following subarachnoid hemorrhage, arterial hypertension and other cardiovascular disorder, pain mediation, type II diabetes,

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etc.

References:
1. Medical physiology a cellular and molecular approach (2nd ed., International ed. ed.). Philadelphia, PA: Saunders/Elsevier. 2009. pp. 480.
2. Modern pharmacology with clinical applications (6th ed. ed.). Philadelphia: Lippincott Williams & Wilkins. 2004. pp. 215.
3. Bagnato A, Rosanò L (2008). "The endothelin axis in cancer". Int. J. Biochem. Cell Biol. 40 (8): 1443–51.