Product Data Sheet

Product Name: H-Ile-Pro-Pro-OH
Cat. No.: GC32611

Chemical Properties

Cas. No.	26001-32-1		
Formula	$C_{16}H_{27}N_3O_4$	M.Wt	325.4
Solubility	Soluble in DMSO	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	H-Ile-Pro-Pro-OH		

Background

H-Ile-Pro-Pro-OH (IPP) is a peptide inhibitor of angiotensin converting enzyme (ACE; IC_{50} = 5 ?M).[1] It inhibits acetylcholine-induced nitric oxide (NO) production in human umbilical vein endothelial cells (HUVECs) when used at a concentration of 1 ?M and induces vasorelaxation in precontracted isolated rat aortic rings.[2] IPP (0.3 mg/kg) decreases systolic blood pressure in spontaneously hypertensive, but not normotensive, rats.[3] Dietary administration of IPP reduces plasma levels of total cholesterol, HDL-cholesterol, and triglycerides, mRNA expression of IL-6 and IL-1β, and aortic arch intimal thickening and atherosclerotic plaque formation in *ApoE*$^{-/-}$ mice.[4]

1.Nakamura, Y., Yamamoto, N., Sakai, K., et al.Purification and characterization of angiotensin I-converting enzyme inhibitors from sour milkJ. Dairy Sci.78(4)777-783(1995) 2.Hirota, T., Nonaka, A., Matsushita, A., et al.Milk casein-derived tripeptides, VPP and IPP induced NO production in cultured endothelial cells and endothelium-dependent relaxation of isolated aortic ringsHeart Vessels26(5)549-556(2011) 3.Nakamura, Y., Yamamoto, N., Sakai, K., et al.Antihypertensive effect of sour milk and peptides isolated from it that are inhibitors to angiotensin I-converting enzymeJ. Dairy Sci.78(6)1253-1257(1995) 4.Nakamura, T., Hirota, T., Mizushima, K., et al.Milk-derived

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peptides, Val-Pro-Pro and Ile-Pro-Pro, attenuate atherosclerosis development in apolipoprotein e-deficient mice: A preliminary studyJ. Med. Food16(5)396-403(2013)