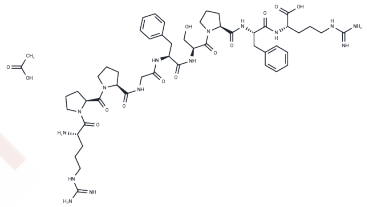
Data Sheet (Cat.No.T21610)

TargetMol

Bradykinin (acetate)

Chemical Properties



CAS No. : 6846-03-3

Formula: C52H77N15O13

Molecular Weight: 1120.26

Storage: Keep away from moisture,Keep away from direct sunlight,Store at low temperature
Pure form: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Bradykinin (acetate) is an active peptide that is generated by the kallikrein-kinin system. It is a inflammatory mediator and also recognized as a neuromediator and regulator of several vascular and renal functions. Enzymatically produced from kallidin in the blood, it is a powerful vasodilator that causes smooth muscle contraction, and may mediate inflammation. It has a role as a human blood serum metabolite and a vasodilator agent. It is a tautomer of a bradykinin(2+).
Targets(IC50)	Endogenous Metabolite,Bradykinin Receptor,Serine Protease
In vivo	Exogenous bradykinin markedly inhibited TF expression in mRNA and protein level induced by LPS in a dose-dependent manner.?Moreover, the NO synthase antagonist L-NAME and PI3K inhibitor LY294002 dramatically abolished the inhibitory effects of bradykinin on tissue factor expression.?PI3K/Akt signaling pathway activation induced by bradykinin administration reduced the activity of GSK-3β and MAPK, and reduced NF-x03BA;B level in the nucleus, thereby inhibiting TF expression.Intraperitoneal injection of C57/BL6 mice with bradykinin also inhibited the thrombus formation induced by ligation of inferior vena cava.
Animal Research	To study the effect of bradykinin on TF expression, we used Lipopolysaccharides (LPS) to induce TF expression in human umbilical vein endothelial cells and monocytes.? Transcript levels were determined by RT-PCR, protein abundance by Western blotting.?In the in vivo study, bradykinin and equal saline were intraperitoneally injected into mice for three days ahead of inferior cava vein ligation that we took to induce thrombus formation, after which bradykinin and saline were injected for another two days.? Eventually, the mice were sacrificed and tissues were harvested for tests[1].

Solubility Information

Solubility	H2O: 100 mg/mL (89.26 mM),Sonication is recommended. DMSO: 250 mg/mL (223.16 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.8926 mL	4.4632 mL	8.9265 mL
5 mM	0.1785 mL	0.8926 mL	1.7853 mL
10 mM	0.0893 mL	0.4463 mL	0.8926 mL
50 mM	0.0179 mL	0.0893 mL	0.1785 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.

Reference

Dong R, et al. Exogenous Bradykinin Inhibits Tissue Factor Induction and Deep Vein Thrombosis via Activating the eNOS/Phosphoinositide 3-Kinase/Akt Signaling Pathway. Cell Physiol Biochem. 2015;37(4):1592-606.
Uchida S, et al. Afferent fibers involved in the bradykinin-induced cardiovascular reflexes from the ovary in rats. Auton Neurosci. 2015 Dec;193:57-62.
Liu LT, et al. Effect of vascular bradykinin on pancreatic microcirculation and hemorheology in rats with severe acute pancreatitis. Eur Rev Med Pharmacol Sci. 2015;19(14):2646-50.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481