



LKT Laboratories, Inc.

GPR

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Product Information

Product ID G6368

CAS No. 47295-77-2

Chemical Name

Synonym

Formula $C_{13}H_{24}N_6O_4$

Formula Wt. 328.18

Melting Point

Purity $\geq 95\%$

Solubility Soluble in water.

Store Temp -20°C

Ship Temp Ambient

Description GPR is a homolog of the fibrinogen E domain that exhibits antithrombotic and neuroprotective activities. GPR is a tripeptide originally found in species of *Amaranthus*; it inhibits fibrin assembly. In vitro, GPR and ferrocene conjugates of GPR inhibit formation of amyloid-B (A β 1-42) fibrils and degrade previously formed fibrils. In other cellular models, GPR inhibits A β -induced increases in lactate hydrogenase, activation of caspase 3, and activation of p53/NF- κ B, preventing neuronal apoptosis.

H-Gly-Pro-Arg-OH

Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
G6368	5 mg	\$98.40
G6368	10 mg	\$167.80
G6368	25 mg	\$294.60

References Montoya-Rodríguez A, de Mejía EG, Dia VP, et al. Extrusion improved the anti-inflammatory effect of amaranth (*Amaranthus hypochondriacus*) hydrolysates in LPS-induced human THP-1 macrophage-like and mouse RAW 264.7 macrophages by preventing activation of NF- κ B signaling. *Mol Nutr Food Res*. 2014 Jan 15. [Epub ahead of print]. PMID: 24431078.

Zhou B, Li CL, Hao YQ, et al. Ferrocene tripeptide Gly-Pro-Arg conjugates: synthesis and inhibitory effects on Alzheimer's A β (1-42) fibrillogenesis and A β -induced cytotoxicity in vitro. *Bioorg Med Chem*. 2013 Jan 15;21(2):395-402. PMID: 23245572.

Ioudina M, Uemura E. A three amino acid peptide, Gly-Pro-Arg, protects and rescues cell death induced by amyloid beta-peptide. *Exp Neurol*. 2003 Dec;184(2):923-9. PMID: 14769384.

Lorand L, Parameswaran KN, Murthy SN. A double-headed Gly-Pro-Arg-Pro ligand mimics the functions of the E domain of fibrin for promoting the end-to-end crosslinking of gamma chains by factor XIIIa. *Proc Natl Acad Sci U S A*. 1998 Jan 20;95(2):537-41. PMID: 9435227.

Nonaka I, Katsuda S, Ohmori T, et al. In vitro and in vivo anti-platelet effects of enzymatic hydrolysates of collagen and collagen-related peptides. *Biosci Biotechnol Biochem*. 1997 May;61(5):772-5. PMID: 9178551.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.