



LKT Laboratories, Inc.

Ac-SDKP

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Product Information

Product ID S1343

CAS No. 120081-14-3

Chemical Name

Ac-Ser-Asp-Lys-Pro-OH

Synonym Goralatide, Seraspenside

Formula $C_{20}H_{33}N_5O_9$

Formula Wt. 487.51

Melting Point

Purity $\geq 95\%$

Solubility Soluble in water.

Bulk quantities available upon request

Product ID	Size
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S1343	5 mg
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S1343	10 mg
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S1343	25 mg
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Store Temp -20°C

Ship Temp Ambient

Description Ac-SDKP is a pro-angiogenic peptide degradation product of thymosin B4 that regulates hematopoiesis by inhibiting proliferation of hematopoietic pluripotent stem cells (spleen colony-forming units, or CFUs). This peptide exhibits cardioprotective, anti-inflammatory, and anti-fibrotic activities. In animal models of chronic myocardial infarction, Ac-SDKP improves left ventricular function, increases angiogenesis, and decreases infarct size. In hypertensive rats, Ac-SDKP prevents angiotensin II-induced increases in collagen synthesis and cross-linking as well as expression of LOX and TGF- β and activation of NF- κ B and lymphocytic immune cells. In other animal models, this peptide prevents fibrosis, decreasing deposition of fibronectin and collagen and decreasing the number of myofibroblasts and macrophages. Ac-SDKP also exhibits nephroprotective activity, inhibiting progression of lupus nephritis in animal models; Ac-SDKP decreases proteinuria, infiltration of inflammatory T cells and macrophages, production of TNF- α , activation of NF- κ B, and phosphorylation of Smad2/3, resulting in improvements in renal function.

References Song M, Jang H, Lee J, et al. Regeneration of chronic myocardial infarction by injectable hydrogels containing stem cell homing factor SDF-1 and angiogenic peptide Ac-SDKP. *Biomaterials*. 2014 Mar;35(8):2436-45. PMID: 24378015.

González GE, Rhaleb NE, Nakagawa P, et al. N-acetyl-seryl-aspartyl-lysyl-proline reduces cardiac collagen cross-linking and inflammation in angiotensin II-induced hypertensive rats. *Clin Sci (Lond)*. 2014 Jan 1;126(1):85-94. PMID: 23834332.

Zuo Y, Chun B, Potthoff SA, et al. Thymosin B4 and its degradation product, Ac-SDKP, are novel reparative factors in renal fibrosis. *Kidney Int*. 2013 Dec;84(6):1166-75. PMID: 23739235.

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Lenfant M, Wdzieczak-Bakala J, Guittet E, et al. Inhibitor of hematopoietic pluripotent stem cell proliferation: purification and determination of its structure. *Proc Natl Acad Sci U S A*. 1989 Feb;86(3):779-82. PMID: 2915977.

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