

## **Product Data Sheet**

Product Name: LSKL, Inhibitor of Thrombospondin (TSP-1)

Catalog Number: AS-60877 (1 mg) Lot Number: See label on vial

Sequence: H-Leu-Ser-Lys-Leu-NH2 (3-letter code)

LSKL-NH2 (1-letter code)

Molecular Weight: 459.6 % Peak Area by HPLC: ≥ 95

Appearance: Lyophilized white powder

Peptide Reconstitution: LSKL peptide is freely soluble in H<sub>2</sub>O.

Storage: LSKL peptide is shipped at ambient temperature. Upon receipt, store lyophilized peptide at –20°C or lower. Reconstituted peptide can be aliquoted and stored at –20°C or lower.

Description: This peptide, derived from the latency-associated peptide, inhibits thrombospondin (TSP-1) activation of TGF-β; thus preventing the progression of hepatic damage and fibrosis. Ref: Ribeiro, SM. et al. *J. Biol. Chem.* **274**, 13586 (1999); Kondou, H. et al. *J. Hepatol.* **39**, 742 (2003).

Additional Information: Listed below are relevant information that may provide a guideline on how to use this product. End users will have to adapt to their own specific applications.

LSKL peptide (AnaSpec, San Jose, CA), a selective antagonist of TSP-1, and SLLK peptide (AnaSpec), an inert control, were used to evaluate effects of TSP-1 on TGF- $\beta$  bioactivity. Confluent mesangial cells were cultured with serum-free DMEM for 48 h. Cells were then exposed to the following conditions for 48 h: 1) control, serum-free DMEM; 2) control plus LSKL peptide (5  $\mu$ M); 3) control plus SLLK peptide (5  $\mu$ M); 4) increased amino acids (Table 1; 5) increased amino acids plus LSKL peptide (5  $\mu$ M)- Meek, R. L. et al. Am J. Physiol Renal Physiol. 285, 79 (2003).

LSKL, SLLK, GGWSHW, and GGASHA peptides were synthesized and purified by AnaSpec, Inc. (San Jose, CA). Quiescent cells were treated with 25  $\mu$ g/ml of Mab133 antibody, 25  $\mu$ g/ml of nonimmune mouse IgG, 1  $\mu$ g/ml of anti-TGF- $\Omega$  antibody, 1  $\mu$ mol/L LSKL peptide, 1  $\mu$ mol/L SLLK peptide, 20  $\mu$ mol/L GGWSHW peptide, 20  $\mu$ mol/L GGASHA peptide, 200  $\mu$ g/ml of aprotinin, 64 nmol/L  $\Omega$ -antiplasmin, or 25  $\mu$ mol/L GM6001 for 24 hours. RFL-6 CD90-transfected cells and RFL-6 EV-transfected cells were seeded in six-well plates and cultured in F12K media supplemented with 10% FBS, 1% penicillin-streptomycin, and 1  $\mu$ g/ml Zeocin until 70 to 80% confluent. Cells were made quiescent with media containing 0.1% FBS for 24 hours and treated with cytokines or BLM for 24 hours-Zhou, Y. et al. *Am. J. Pathol.* **165**, 659 (2004).

Both peptides (LSKL and LSAL) were purchased from AnaSpec, Inc., San Jose, CA. Peptides were purified by reversed phase high-performance liquid chromatography and determined to be >98% pure by mass spectrometry. Experimental and sham animals were randomly placed into the following groups: Sham, Sham + LSKL, Sham + LSAL, diabetic with abdominal aortic coarctation (DAAC), DAAC + LSKL, and DAAC + LSAL (five to eight animals per group). Peptide administration began 6 weeks following induction of experimental or sham procedures. The peptides were solubilized in sterile saline and given to animals by intraperitoneal injection at a dose of 4 mg/kg, three times per week for 6 weeks-Belmadani, S. Am. J. Path. 171, 777 (2007).

## **Published Citations:**

Meek, R. L. et al. *Am J Physiol Renal Physiol.* **285**, 79 (2003). Zhou, Y. et al. *Am. J. Pathol.* **165**, 659 (2004). Belmadani, S. *Am. J. Path.* **171**, 777 (2007).

## Related Products:

Name
SLLK, Control Peptide for TSP1 Inhibitor
(SLLK-NH2)

**Cat # Size** AS-60875 1 mg

For Research Use Only