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 H2O.

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-β 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 µM); 3) control plus SLLK peptide (5 µM); 4) increased amino acids (Table 1; 5) increased amino acids plus LSKL peptide (5 µM); and 6) increased amino acids plus SLLK peptide (5 µM). 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 µg/ml of Mab133 antibody, 25 µg/ml of nonimmune mouse IgG, 1 µg/ml of anti-TGF-β antibody, 1 µmol/L LSKL peptide, 1 µmol/L SLLK peptide, 20 µmol/L GGWSHW peptide, 20 µmol/L GGASHA peptide, 200 µg/ml of aprotinin, 64 mmol/L α2-antiplasmin, or 25 µmol/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 µg/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. Pathol. 171, 777 (2007).
Published Citations:


Related Products:

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<tr>
<th>Name</th>
<th>Cat #</th>
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<tbody>
<tr>
<td>SLLK, Control Peptide for TSP1 Inhibitor</td>
<td>AS-60875</td>
<td>1 mg</td>
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<tr>
<td>(SLLK-NH2)</td>
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