
Product Data Sheet

Product Name: Handle region peptide, rat

Cat. No.: GC30633

Chemical Properties

Cas. No. 749227-53-0

SMILES Arg-Ile-Leu-Leu-Lys-Lys-Met-Pro-Ser-Val

Formula $C_{54}H_{101}N_{15}O_{12}S$ M.Wt 1184.54

Solubility Soluble in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Protocol

The immortalized rat glomerular mesangial cells are incubated at 37°C in Dulbecco's modified Eagle medium (DMEM) supplemented with 10% bovine calf serum (BCS) in a humidified atmosphere of 95% air plus 5% CO₂. When the cell reaches about 80% confluence, they are made quiescent by decreasing BCS to 0.5% for 24 to 48 h.

Cell experiment: To detect the effect of Handle region peptide on p44/42 MAP kinase, the cells are further cultured in serum-deprived medium for 24 h before 1 μM Handle region peptide is added in. The cells are harvested at 0, 1, 5, 10, 60, 120 min time points after Handle region peptide application. Protein isolated from cell lysates is used for subsequent Western blotting analysis[1].

Caution: Product has not been fully validated for medical applications. For research use only.

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**Animal
experiment:**

Rats[2] Long-Evans rats (5-7 weeks old) are treated with 0.1-mL intraperitoneal injections of vehicle (PBS) or Handle region peptide (0.1 or 0.01 mg/kg body weight) the day before and immediately after the injection of LPS. The effects of Handle region peptide treatment on ocular inflammation are evaluated 24 hours after LPS injection[2].

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References:

- [1]. He M, et al.
Inhibition of
renin/prorenin
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Background

Handle region peptide, rat is a prorenin receptor antagonist, suppresses the progression of diabetic nephropathy and has anti-inflammatory in the eye.

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Handle region peptide, rat is a (pro)renin receptor antagonist. Handle region peptide, rat (1 μ M) reduces the ratio of active to total ERK1/2. Handle region peptide, rat (0.1-1 μ M) reduces TGF- β 1 mRNA level, and inhibits the mesangial cells proliferation in a dose-dependent manner. Handle region peptide, rat (0.01-1 μ M) increases the MMP-2 activity[1].

Handle region peptide, rat (0.1 mg/kg) suppresses leukocyte adhesion in the endotoxin-induced uveitis (EIU) retina, and decreases the leukocyte counts in rats. Handle region peptide, rat (0.1 mg/kg) lowers the protein concentration in EIU rats induced by LPS, and reduces the mRNA expression and the protein levels of inflammatory mediators such as ICAM-1, CCL2/MCP-1, and IL-6 in rats[2].

[1]. He M, et al. Inhibition of renin/prorenin receptor attenuated mesangial cell proliferation and reduced associated fibrotic factor release. *Eur J Pharmacol.* 2009 Mar 15;606(1-3):155-61. [2]. Satofuka S, et al. Suppression of ocular inflammation in endotoxin-induced uveitis by inhibiting nonproteolytic activation of prorenin. *Invest Ophthalmol Vis Sci.* 2006 Jun;47(6):2686-92.

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