
Product Data Sheet

Product Name: PACAP (1-38), human, ovine, rat TFA

Cat. No.: GC36838

Chemical Properties

Cas. No.

Formula $C_{203}H_{331}N_{63}O_{53}S.C_2HF_3O_2$ M.Wt 4648.28

Solubility H₂O : 20 mg/mL 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

Background

PACAP 1-38 (Pituitary Adenylate Cyclase Activating Polypeptide 38) is a highly potent PACAP receptor agonist ($K_d = 100$ pM). It stimulates adenylate cyclase and phagocytosis.

PACAP 1-38 has potent, efficacious, and sustained stimulatory effects on sympathetic neuronal NPY and catecholamine production[1]. It is a pleiotropic neuropeptide, exhibiting a variety of biologic actions, including activities as a neurotransmitter, neuromodulator, neurotrophic factor, as well as an immunomodulator, in immune cells through its effect on MAPK signaling and modulation of activation of NFκB. PACAP 1-38 dramatically prevents injury of cultured renal proximal tubule cells caused by myeloma light chains through suppression of proinflammatory cytokines production, by inhibiting p38 MAPK and translocation of NFκB via both PAC1 and VPAC1 receptors. PACAP38 inhibits myeloma cell growth directly and may also indirectly by suppressing production of the growth factor, IL-6, from bone marrow stromal cells, that is stimulated by adhesion of myeloma cells. PACAP38 suppressed release of both IL-6 and TNFα dose dependently[2].

PACAP38 is capable of inhibiting light chain-induced cytokine expression with a great potency and prevented the resulting cell damage in vivo. However, PACAP is also

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

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considered as an autoregulatory factor for certain tumors, stimulating their growth in an autocrine fashion[2].

[1] Dautzenberg FM, et al. J Neuroendocrinol. 1999, 11(12):941-9. [2] Arimura A, et al. Blood. 2006, 107(2):661-8. [3] Dautzenberg FM, et al. J Neuroendocrinol. 1999, 11(12):941-9.

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