

CTOP acetate

Chemical Properties

CAS No. :

Formula: C52H71N11O13S2

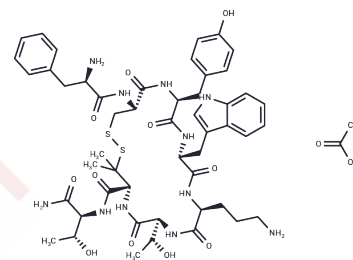
Molecular Weight: 1122.32

Storage:

Store at low temperature, Keep away from moisture

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	CTOP acetate is a somatostatin analogue and a μ -opioid receptor antagonist.
Targets(IC50)	Opioid Receptor
In vitro	CTOP acetate increased a K ⁺ conductance with an EC ₅₀ of 560 nM. The K ⁺ currents induced by high concentrations of CTOP acetate desensitized to 42% of the initial maximum after prolonged superfusion (t _{1/2} = 247 sec). In the presence of fully desensitized CTOP acetate responses, somatostatin (1 microM) still produced near-maximal K ⁺ currents; i.e., there was no cross-desensitization, which suggests that CTOP acetate might act on a receptor distinct from somatostatin receptors. However, the converse did not apply; high concentrations of CTOP acetate (30 microM) did not produce any additional current in the presence of desensitized somatostatin responses [2].
In vivo	Intracerebroventricular (i.c.v.) administration of CTOP acetate antagonized the analgesic effect of morphine in a dose-dependent manner, as measured by the heat-irradiant (tail-flick) method. CTOP acetate was more effective than naloxone in inhibiting analgesia on a molar basis. CTOP acetate also antagonized the acute morphine-induced hypermotility. CTOP acetate caused withdrawal hypothermia and a loss of body weight in morphine-dependent animals. After the development of morphine-induced chronic dependence, CTOP acetate administered i.c.v. caused a dose-dependent loss of body weight and hypothermia, and was about 10-400 times more potent than naloxone. CTOP acetate administered alone to drug-naive mice did not cause antinociception, changes in body weight or body temperature[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.891 mL	4.4551 mL	8.9101 mL
5 mM	0.1782 mL	0.891 mL	1.782 mL
10 mM	0.0891 mL	0.4455 mL	0.891 mL
50 mM	0.0178 mL	0.0891 mL	0.1782 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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