Glatiramer acetate

Cat. No.: HY-109520

CAS No.: 147245-92-9

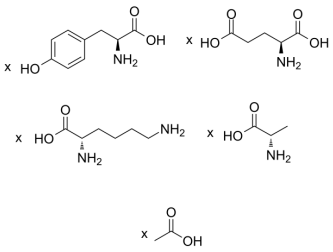
Molecular Formula: $(C_9H_{11}NO_3.C_6H_{14}N_2O_2.C_5H_9NO_4.C_3H_7NO_2)x.xC_2H_4O_2$

Target: Others

Pathway: Others

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	H_2O : 33.33 mg/mL (Need ultrasonic)

BIOLOGICAL ACTIVITY

Description	Glatiramer acetate, a synthetic analogue of myelin basic protein and an immunomodulating agent, can be used for the research of multiple sclerosis. Glatiramer acetate exhibits strong and promiscuous binding to MHC molecules and consequent competition with various myelin antigens for their presentation to T cells. A further aspect of its action is potent induction of specific suppressor cells of the T helper 2 (Th2) type that migrate to the brain and lead to in situ bystander suppression[1][2][3].
In Vitro	Glatiramer acetate (25-100 mg/kg; S.c; 5 days) increase BDNF levels[3]. In huntington's disease (HD) mouse model, the N171-82Q transgenic mouse line, which exhibits a more rapidly progressing disease course. Glatiramer acetate (1 mg/mouse; s.c.; 5×week) beginning at 8 weeks of age and continuing until 20 weeks of age, which is near the age of death due to the disease. Glatiramer acetate elicited improves performance on several motor function measures. Glatiramer acetate significantly improves the performance of N171-82Q transgenic mice at 15 weeks of age in the rotarod test measured over the course of 4 days[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. McKeage K. Glatiramer Acetate 40 mg/mL in Relapsing-Remitting Multiple Sclerosis: A Review. CNS Drugs. 2015;29(5):425-432.

[2]. Arnon R, et al. Mechanism of action of glatiramer acetate in multiple sclerosis and its potential for the development of new applications. Proc Natl Acad Sci U S A. 2004;101 Suppl 2(Suppl 2):14593-14598.

[3]. Corey-Bloom J, et al. Beneficial effects of glatiramer acetate in Huntington's disease mouse models: Evidence for BDNF-elevating and immunomodulatory mechanisms. Brain Res. 2017;1673:102-110.

[4]. Aharoni R, et al. Glatiramer acetate-specific T cells in the brain express T helper 2/3 cytokines and brain-derived neurotrophic factor in situ [published correction appears in Proc Natl Acad Sci U S A. 2005 Aug 23;102(34):12288]. Proc Natl Acad Sci U S A

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

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