

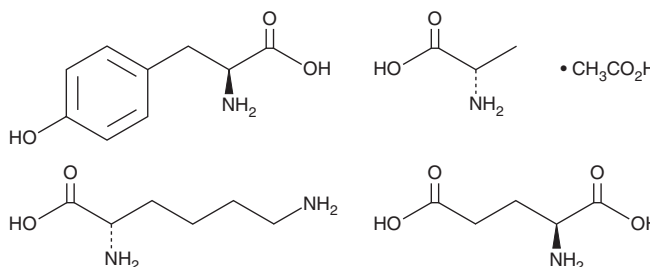
PRODUCT INFORMATION



Glatiramer (acetate)

Item No. 9000571

CAS Registry No.: 147245-92-9
Formal Name: L-glutamic acid, polymer with L-alanine, L-lysine, and L-tyrosine, acetate
Synonym: Copolymer 1
MF: $(C_9H_{11}NO_3 \cdot C_6H_{14}N_2O_2 \cdot C_5H_9NO_4 \cdot C_3H_7NO_2)_x \cdot XC_2H_4O_2$
FW: 623.7
Purity: $\geq 95\%$
UV/Vis.: λ_{max} : 224, 278 nm
Supplied as: A crystalline solid
Storage: $-20^\circ C$
Stability: ≥ 2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Glatiramer (acetate) is supplied as a crystalline solid. Aqueous solutions of glatiramer (acetate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of glatiramer (acetate) in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Glatiramer (acetate) is a mixture of synthetic polypeptides composed of four amino acids found in myelin basic protein (MBP): L-Alanine, L-glutamic acid, L-lysine, and L-tyrosine. It prevents MBP from binding to MHC class II molecules in the periphery and induces the production of immunomodulatory molecules considered to be anti-inflammatory.¹ It also increases proliferation of oligodendrocyte and neuronal precursor cells in the central nervous system of mice.^{2,3} Formulations containing glatiramer (acetate) are used to treat patients with multiple sclerosis, particularly the relapsing-remitting type.⁴

References

- Aharoni, R. The mechanism of action of glatiramer acetate in multiple sclerosis and beyond. *Autoimmun. Rev.* **12(5)**, 543-553 (2013).
- Skihar, V., Silva, C., Choinacki, A., *et al.* Promoting oligodendrogenesis and myelin repair using the multiple sclerosis medication glatiramer acetate. *Proc. Natl. Acad. Sci. USA* **106(42)**, 17992-17997 (2009).
- Aharoni, R., Arnon, R., and Eilam, R. Neurogenesis and neuroprotection induced by peripheral immunomodulatory treatment of experimental autoimmune encephalomyelitis. *J. Neurosci.* **25(36)**, 8217-8228 (2005).
- Ziemssen, T., Ashtamker, N., Rubinchik, S., *et al.* Long-term safety and tolerability of glatiramer acetate 20 mg/ml in the treatment of relapsing forms of multiple sclerosis. *Expert Opin. Drug Discov.* **16(2)**, 248-255 (2017).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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