γ-Fibrinogen 377-395 TFA

Cat. No.:	HY-P5121A
Molecular Formula:	$C_{102}H_{166}F_3N_{25}O_{30}S_2$
Molecular Weight:	2343.68
Sequence:	Tyr-Ser-Met-Lys-Glu-Thr-Thr-Met-Lys-Ile-Ile-Pro-Phe-Asn-Arg-Leu-Ser-Ile-Gly
Sequence Shortening:	YSMKETTMKIIPFNRLSIG
Target:	Others
Pathway:	Others
Storage:	Sealed storage, away from moisture and light, under nitrogen Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light, under nitrogen)

BIOLOGICAL ACTIVITY

Description

γ-Fibrinogen377-395 TFA is a fibrinogen-derived inhibitory peptide, as well as fibrinogen epitope. γ-Fibrinogen377-395 TFA blocks microglia activation and inhibits fibrin-Mac-1 interactions in vitro, and suppresses experimental autoimmune encephalomyelitis (EAE) in mice in vivo. γ-Fibrinogen377-395 TFA can be used for research in multiple sclerosis (MS), and other neuroinflammatory diseases associated with blood-brain barrier disruption and microglia activation[1].

In Vitro

γ-Fibrinogen377-395 TFA (200 μM) blocks fibrin binding to Mac-1 that inhibits and adhesion of Mac-1–overexpressing cells to immobilized fibrinogen. γ-Fibrinogen377-395 TFA inhibits microglia activation[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

γ-Fibrinogen377-395 TFA (30 μg/mouse; administered intranasally; once daily for 40 days) increases motor functions of mouse without affecting the peripheral immune response. γ-Fibrinogen377-395 TFA does not affect the coagulation properties of fibrinogen[1].

Immunized with γ377-395 peptide before EAE induction, γ377-395 peptide-vaccinated mice has an increases in motor strength and coordination compared with control[1].

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Animal Model:	PLP139-151-immunized mice with experimental autoimmune encephalomyelitis (EAE)[1]
Dosage:	30 μg/mouse
Administration:	Administered intranasally; daily after the first paralytic episode in remitting relapsing EAE
Result:	Reduced the progression and severity of EAE by specifically targeting microglia/macrophage activation in the CNS parenchyma without adverse hemorrhagic effects.

REFERENCES

[1]. Adams RA, et al. The fibrin-derived gamma377-395 peptide inhibits microglia activation and suppresses relapsing paralysis in central nervous system autoimmune disease. J Exp Med. 2007 Mar 19;204(3):571-82.

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