



Catalog Number:	MC11050	Product Type:	Small Molecule
Bio-Activity:	Leukocyte elastase inhibitor	CAS #:	127373-66-4
Research Categories:	Neuroscience, inflammation, ischemia	Chemical Name:	N-{2-[[[4-[(2,2-Dimethylpropanoyl)oxy]phenyl)sulfonyl]amino]benzoyl}glycine sodium
Solubility:	Soluble in DMSO (up to 20 mg/ml).	Molecular Formula:	C ₂₀ H ₂₁ N ₂ O ₇
Purity:	> 98%	Molecular Weight:	456.45
Format:	Powder	Ship Temp:	Ambient
Storage:	Room Temperature		

Application Notes

Description/Data:

Potent and selective leukocyte elastase inhibitor, IC₅₀ = 44 nM [1]. Displays no activity at a variety of other proteases. Inhibits NF-κB activation [2] and LTB₄-induced neutrophil migration in vitro [3]. Significantly attenuates ischemia-induced spinal cord injury, decreases serum cytokine levels and reduces acute inflammatory lung injury in vivo [4].

References:

- 1) Kawabata et al. (1991), ONO-5046, a novel inhibitor of human neutrophil elastase; Biochem. Biophys. Res. Commun., 177 814
- 2) Hagiwara et al. (2009), Neutrophil elastase inhibitor (sivelestat) reduces the levels of inflammatory mediators by inhibiting NFκB; Inflamm. Res., 58 198
- 3) Young et al. (2007), Role of neutrophil elastase in LTB₄-induced neutrophil transmigration in vivo assessed with a specific inhibitor and neutrophil elastase deficient mice; Br. J. Pharmacol., 151 628
- 4) Iwamoto et al. (2009), Protective effect of sivelestat sodium hydrate (ONO-5046) on ischemic spinal cord injury; Interact. Cardiovasc. Thorac. Surg., 8 606

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