



## Sivelestat

## Data Sheet

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<b>Catalog Number:</b>	MC11050	<b>Product Type:</b>	Small Molecule
<b>Bio-Activity:</b>	Leukocyte elastase inhibitor	<b>CAS #:</b>	127373-66-4
<b>Research Categories:</b>	Neuroscience, inflammation, ischemia	<b>Chemical Name:</b>	N-(2-[(4-[(2,2-Dimethylpropanoyl)oxy]phenyl)sulfonyl]amino]benzoyl)glycine sodium
<b>Solubility:</b>	Soluble in DMSO (up to 20 mg/ml).	<b>Molecular Formula:</b>	C20H21N2O7
<b>Purity:</b>	> 98%	<b>Molecular Weight:</b>	456.45
<b>Format:</b>	Powder	<b>Ship Temp:</b>	Ambient
<b>Storage:</b>	Room Temperature		

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### 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- $\kappa$ B 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 NF $\kappa$ B; *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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