



# LKT Laboratories, Inc.

## Sivelestat Sodium Tetrahydrate

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### Product Information

Product ID S3584

CAS No. 201677-61-4

Chemical Name

Synonym

Formula  $C_{20}H_{21}N_2O_7S Na \cdot 4H_2O$

Formula Wt. 528.51

Melting Point

Purity  $\geq 99\%$

Solubility 10 mM in MeOH, 2 mM in H<sub>2</sub>O

Store Temp Ambient

Ship Temp Ambient

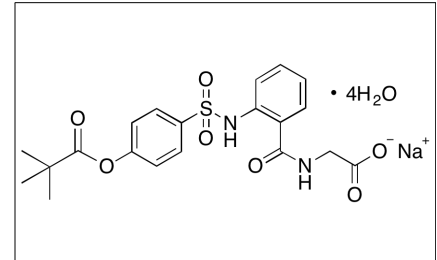
**Description** Sivelestat is an inhibitor of neutrophil elastase that exhibits cardioprotective, anti-inflammatory, and anticancer activities. In vitro, sivelestat decreases superoxide dismutase (SOD) adduct formation and in vivo, it decreases SOD levels, resulting in a decrease in myocardial infarction size and improvement in left ventricular contractility. In other cellular models, sivelestat decreases induction of iNOS and production of NO and also prevents activation of NF- $\kappa$ B and expression of the IL-1 receptor. Sivelestat inhibits contraction of tracheal and bronchial rings, decreasing airway hyperresponsiveness. Additionally, this compound inhibits release of TGF- $\alpha$ , PDGF-AA, PDGF-BB, and VEGF in esophageal carcinoma cells, inhibiting cell invasion and proliferation.

**References** Aune SE, Yeh ST, Kuppusamy P, et al. Sivelestat attenuates myocardial reperfusion injury during brief low flow postischemic infusion. *Oxid Med Cell Longev*. 2013;2013:279847. PMID: 23766850.

Araki Y, Matsumiya M, Matsuura T, et al. Sivelestat suppresses iNOS gene expression in proinflammatory cytokine-stimulated hepatocytes. *Dig Dis Sci*. 2011 Jun;56(6):1672-81. PMID: 21221803.

Wada Y, Yoshida K, Tsutani Y, et al. Neutrophil elastase induces cell proliferation and migration by the release of TGF-alpha, PDGF and VEGF in esophageal cell lines. *Oncol Rep*. 2007 Jan;17(1):161-7. PMID: 17143494.

Takayama N, Uchida K. Epithelium-dependent and -independent inhibitory effects of sivelestat, a neutrophil elastase inhibitor, on substance P-induced contraction of airway smooth muscle in lipopolysaccharide-treated guinea-pigs. *J Smooth Muscle Res*. 2005 Oct;41(5):257-70. PMID: 16428865.



### Pricing and Availability

*Bulk quantities available upon request*

Product ID	Size	List Price
S3584	5 mg	\$92.30
S3584	25 mg	\$359.70

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.