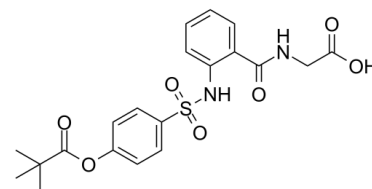


Data Sheet

Product Name:	Sivelestat
Cat. No.:	CS-2919
CAS No.:	127373-66-4
Molecular Formula:	C ₂₀ H ₂₂ N ₂ O ₇ S
Molecular Weight:	434.46
Target:	Elastase
Pathway:	Metabolic Enzyme/Protease
Solubility:	DMSO : ≥ 100 mg/mL (230.17 mM)



BIOLOGICAL ACTIVITY:

Sivelestat(ONO5046; LY544349; EI546) is a competitive inhibitor of human neutrophil elastase(IC₅₀ = 44 nM; K_i=200 nM); also inhibited leukocyte elastase obtained from rabbit, rat, hamster and mouse. IC₅₀ value: 44 nM [1] Target: neutrophil elastase ONO-5046 did not inhibit trypsin, thrombin, plasmin, plasma kallikrein, pancreas kallikrein, chymotrypsin and cathepsin G even at 100 microM. In in vivo studies, ONO-5046 suppressed lung hemorrhage in hamster (ID₅₀ = 82 micrograms/kg) by intratracheal administration and increase of skin capillary permeability in guinea pig (ID₅₀ = 9.6 mg/kg) by intravenous administration, both of which were induced by human neutrophil elastase [1]. Sivelestat sodium hydrate is an anti-neutrophil elastase inhibitor and may be one of the treatment options for acute respiratory failure due to pneumocystis pneumonia in AIDS patients [2].

References:

- [1]. Kawabata K, et al. ONO-5046, a novel inhibitor of human neutrophil elastase. Biochem Biophys Res Commun. 1991 Jun 14;177(2):814-20.
- [2]. Imokawa S, et al. Acute respiratory failure due to pneumocystis pneumonia successfully treated with combined use of sivelestat sodium hydrate. Nihon Koryoku Gakkai Zasshi. 2008 Jun;46(6):461-5.

CAIndexNames:

Propanoic acid, 2,2-dimethyl-, 4-[[[2-[[[(carboxymethyl)amino]carbonyl]phenyl]amino]sulfonyl]phenyl ester

SMILES:

CC(C)(C)C(OC1=CC=C(S(=O)(=O)NC2=CC=CC=C2C(NCC(=O)O)=O)=O)C=C1)=O

Caution: Product has not been fully validated for medical applications. For research use only.

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