

Product Data Sheet

Product Name: Sivelestat sodium salt

Cat. No.: GC17247

Chemical Properties

Cas. No. 150374-95-1

Chemical Name sodium;2-[[2-[[4-(2,2-dimethylpropanoyloxy)phenyl]sulfonylamino]benzoyl]amino]acetate

SMILES CC(C)(C)C(=O)OC1=CC=C(C=C1)S(=O)(=O)NC2=CC=CC=C2C(=O)NCC(=O)[O-].[Na+]

Formula $C_{20}H_{21}N_2NaO_7S$

M.Wt 456.44

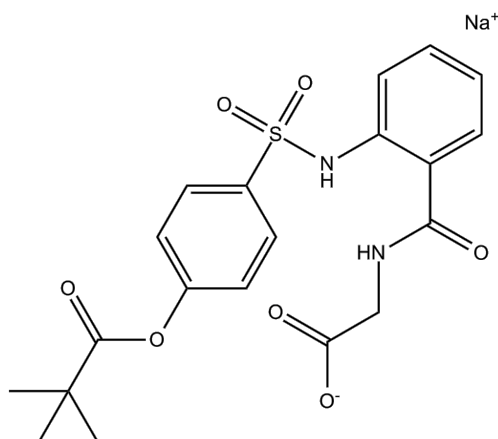
Solubility Soluble in DMSO

Storage Desiccate at RT

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Sivelestat sodium (ONO5046; LY544349; EI546) is a competitive inhibitor of human neutrophil elastase ($IC_{50} = 44$ nM; $K_i = 200$ nM); also inhibited leukocyte elastase obtained from rabbit, rat, hamster and mouse. IC_{50} value: 44 nM [1]. Target: neutrophil elastase. ONO-5046 did not inhibit trypsin, thrombin, plasmin, plasma kallikrein, pancreas kallikrein, chymotrypsin and cathepsin G even

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

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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 Kokyuki Gakkai Zasshi. 2008 Jun;46(6):461-5.

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