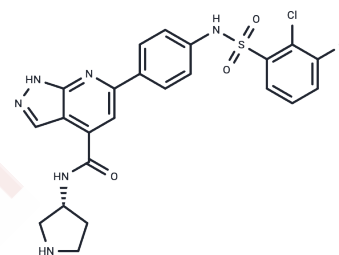


SGK1-IN-3

Chemical Properties

CAS No. :	2891696-18-5
Formula:	C ₂₃ H ₂₀ Cl ₂ N ₆ O ₃ S
Molecular Weight:	531.41
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	SGK1-IN-3 (compound 3a) is a potent serum- and glucocorticoid-regulated kinase 1 (SGK1) inhibitor with an IC ₅₀ value of less than 1 μM, SGK1-IN-3 is applied in musculoskeletal research to explore SGK1-mediated signaling pathways and its potential role in osteoarthritis pathogenesis and therapeutic intervention.
Targets(IC ₅₀)	Others
In vitro	In kinase assays, SGK1-IN-3 inhibited SGK1 with an IC ₅₀ of 0.6 nM, demonstrating selectivity over related AGC kinases S6K1 and AKT [1].
In vivo	In a rat model of Destabilization of the Medial Meniscus (DMM), oral administration of SGK1-IN-3 resulted in cartilage preservation. The treatment reduced cartilage degradation scores (OARSI scores) and inhibited the expression of catabolic markers within the joint tissue. Pharmacokinetic evaluations indicate that the compound possesses oral bioavailability and metabolic stability in rodent models [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8818 mL	9.4089 mL	18.8179 mL
5 mM	0.3764 mL	1.8818 mL	3.7636 mL
10 mM	0.1882 mL	0.9409 mL	1.8818 mL
50 mM	0.0376 mL	0.1882 mL	0.3764 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Halland N, et al. Rational Design of Highly Potent, Selective, and Bioavailable SGK1 Protein Kinase Inhibitors for the Treatment of Osteoarthritis. J Med Chem. 2022;65(2):1567-1584.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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