

A 80915A

Chemical Properties

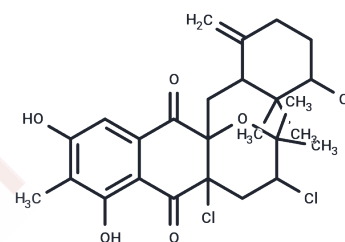
CAS No. : 127875-60-9

Formula: C₂₆H₃₁Cl₃O₅

Molecular Weight: 529.88

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	A 80915A is A semi-naphthoquinone antibiotic from <i>Streptomyces aculeolatus</i> . It is a potent inhibitor of gastric (H(+)-K+)-ATPase. Inhibition by A80915A is dependent on the conformation of gastric (H(+)-K+)-ATPase, potassium slows the rate of inhibition by converting the enzyme to a conformation where the drug binding site is not as accessible.
Targets(IC50)	ATPase,Others,Proton pump

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8872 mL	9.4361 mL	18.8722 mL
5 mM	0.3774 mL	1.8872 mL	3.7744 mL
10 mM	0.1887 mL	0.9436 mL	1.8872 mL
50 mM	0.0377 mL	0.1887 mL	0.3774 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

- Haste NM, Farnaes L, Perera VR, Fenical W, Nizet V, Hensler ME. Bactericidal kinetics of marine-derived napyradiomycins against contemporary methicillin-resistant *Staphylococcus aureus*. *Mar Drugs*. 2011;9(4):680-9. doi: 10.3390/md9040680. Epub 2011 Apr 21. PubMed PMID: 21731557; PubMed Central PMCID: PMC3124980.
- Ono S, Guntupalli J, DuBose TD Jr. Role of H(+)-K(+)-ATPase in pH regulation in inner medullary collecting duct cells in culture. *Am J Physiol*. 1996 May;270(5 Pt 2):F852-61. PubMed PMID: 8928848.
- Dantzig AH, Minor PL, Garrigus JL, Fukuda DS, Mynderse JS. Studies on the mechanism of action of A80915A, a semi-naphthoquinone natural product, as an inhibitor of gastric (H(+)-K+)-ATPase. *Biochem Pharmacol*. 1991 Oct 24; 42(10):2019-26. PubMed PMID: 1683772.
- Armitage FE, Wingo CS. Luminal acidification in K-replete OMCDi: inhibition of bicarbonate absorption by K removal and luminal Ba. *Am J Physiol*. 1995 Jul;269(1 Pt 2):F116-24. PubMed PMID: 7631825.

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