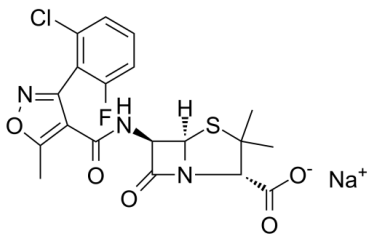
Data Sheet

Product Name:	Flucloxacillin sodium
Cat. No.:	CS-7130
CAS No.:	1847-24-1
Molecular Formula:	C19H16ClFN3NaO5S
Molecular Weight:	475.85
Target:	Bacterial
Pathway:	Anti-infection
Solubility:	H2O : 100 mg/mL (210.15 mM; Need ultrasonic); DMSO : ≥ 100 mg/mL (210.15 mM)



BIOLOGICAL ACTIVITY:

Flucloxacillin sodium is a highly active antibiotic against Gram-positive and Gram-negative **bacteria**. IC50 & Target: Bacterial[1] **In Vivo:** The serum elimination half-life of flucloxacillin is 1.31-1.39 hours, and six hours after administration of a single 250 mg dose the serum concentration of flucloxacillin is 0.46 micrograms/mL[1]. Oral flucloxacillin does not affect sweat electrolytes and is not a contraindication to sweat testing[2]. Flucloxacillin has been reported to be metabolized in man to the penicilloic acid, the antibacterially active 5'-hydroxymethyl derivative and the penicilloic acid of the 5'-hydroxymethyl derivative. The metabolism of flucloxacillin in the rat is similar[3].

PROTOCOL (Extracted from published papers and Only for reference)

Animal Administration: Flucloxacillin sodium is prepared in sterile water.[3]Rats: On the day of the experiment the animal is given an intravenous bolus injection of 200 mg/kg as pure free acid sodium flucloxacillin (dose volume: 1 mL sterile water per kg) and then return to the metabolism cage. Urine is collected directly into individual CO_2 cooled containers for a period of 24 h before dosing and then at frequent intervals after dosing[3].

References:

[1]. Paton DM, et al. Bioavailability and half-life of two preparations of flucloxacillin. N Z Med J. 1982 Nov 10;95(719):766-8.

[2]. Williams J, et al.Sweat tests and flucloxacillin. Arch Dis Child. 1988 Jul;63(7):847-8.

[3]. Everett JR, et al. 19F NMR spectroscopy study of the metabolites of flucloxacillin in rat urine. J Pharm Pharmacol. 1985 Dec;37(12):869-73.

CAIndexNames:

4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 6-[[[3-(2-chloro-6-fluorophenyl)-5-methyl-4-isoxazolyl]carbonyl]amino]-3,3-dimethyl-7-oxo-, sodium salt (1:1), (2S,5R,6R)-

SMILES:

[O-]C([C@@H]1N(C2=O)[C@]([C@@H]2NC(C(C(C(F)=CC=C3)=C3Cl)=NO4)=C4C)=O)([H])SC1(C)C)=O.[Na+]

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

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