

Rivaroxaban

Catalog No: tcsc0555



Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg



Specifications

CAS No:

366789-02-8

Formula:

$C_{19}H_{18}ClN_3O_5S$

Pathway:

Metabolic Enzyme/Protease

Target:

Factor Xa

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Alternative Names:

BAY 59-7939

Observed Molecular Weight:

435.88

Product Description

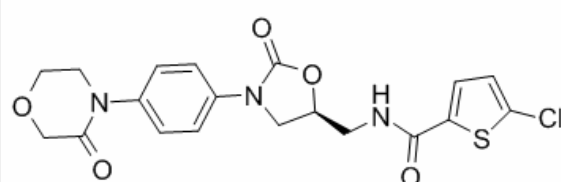
Rivaroxaban is a highly potent and selective, direct **Factor Xa (FXa)** inhibitor, achieving a strong gain in anti-FXa potency (**IC₅₀** 0.7 nM; **K_i** 0.4 nM).

IC50 & Target: IC50: 0.7 nM (FXa)^[1]

Ki: 0.4 nM (FXa)^[1]

In Vitro: Rivaroxaban (BAY 59-7939) is an oral, direct Factor Xa (FXa) inhibitor in development for the prevention and treatment of arterial and venous thrombosis. Rivaroxaban competitively inhibits human FXa (K_i 0.4 nM) with >10 000-fold greater selectivity than for other serine proteases; it also inhibits prothrombinase activity (IC₅₀ 2.1 nM). Rivaroxaban inhibits endogenous FXa more potently in human and rabbit plasma (IC₅₀ 21 nM) than rat plasma (IC₅₀ 290 nM). It demonstrates anticoagulant effects in human plasma, doubling prothrombin time (PT) and activates partial thromboplastin time at 0.23 and 0.69 μM, respectively^[2].

In Vivo: Rivaroxaban (BAY 59-7939) is a potent and selective, direct FXa inhibitor with excellent in vivo activity and good oral bioavailability^[1]. Rivaroxaban (BAY 59-7939), administered by i.v. bolus before thrombus induction, reduces thrombus formation (ED₅₀ 0.1 mg/kg), inhibits FXa, and prolongs PT dose dependently. PT and FXa are affected slightly at the ED₅₀ (1.8-fold increase and 32% inhibition, respectively). At 0.3 mg/kg (dose leading to almost complete inhibition of thrombus formation), Rivaroxaban moderately prolongs PT (3.2±0.5-fold) and inhibits FXa activity (65±3%)^[2].



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