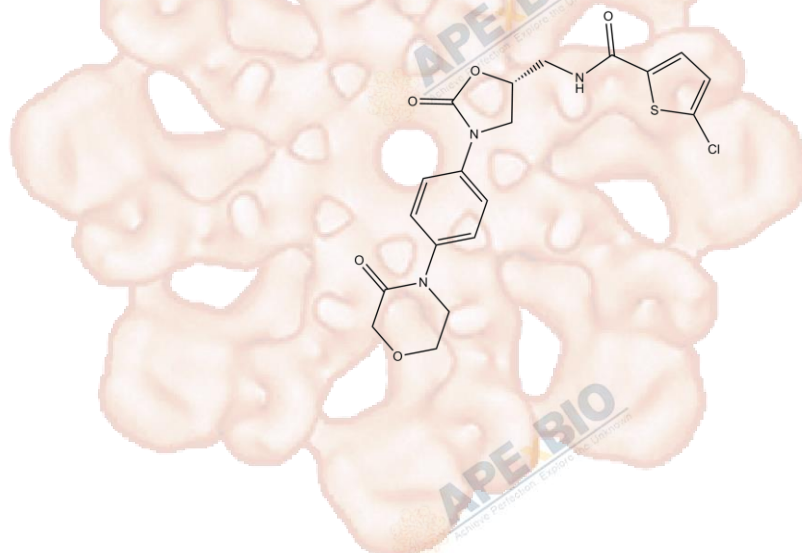


Product Data Sheet

5-R-Rivaroxaban

Cat. No.:	A3126
CAS No.:	865479-71-6
Formula:	C19H18ClN3O5S
M.Wt:	435.88
Synonyms:	Xarelto; BAY 59-7939
Target:	Proteases
Pathway:	Thrombin
Storage:	Store at -20°C



Solvent & Solubility

≥20.85 mg/mL in DMSO; insoluble in H₂O; insoluble in EtOH

In Vitro

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1mg	5mg	10mg
	1 mM		2.2942 mL	11.4710 mL	22.9421 mL
	5 mM		0.4588 mL	2.2942 mL	4.5884 mL
	10 mM		0.2294 mL	1.1471 mL	2.2942 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

Factor Xa (FXa) inhibitor

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	Human, rabbit and rat plasma
Preparation method:	The solubility of this compound in DMSO is >20.85mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	IC50: 21 nM (human and rabbit plasma)

	Applications:	Rivaroxaban competitively inhibited human FXa with the Ki value of 0.4 nM. Rivaroxaban inhibited prothrombinase activity with the IC50 of 2.1 nM. Rivaroxaban inhibited endogenous FXa more potently in human and rabbit plasma (IC50: 21 nM) than rat plasma (IC50:290 nM). Rivaroxaban demonstrated anticoagulant effects in human plasma, doubling prothrombin time (PT) and activated partial thromboplastin time at 0.23 and 0.69 µM, respectively.
In Vivo	Animal experiment	
	Animal models:	Rat venous stasis model, Anaesthetised rat model
	Dosage form:	Intravenous injection, Oral administration, 2 mg/kg
	Applications:	In a rat venous stasis model, Rivaroxaban (i.v.) dose-dependently reduced venous thrombosis with the ED50 of 0.1 mg/kg. Rivaroxaban (p.o.) reduced arterial (fibrin- and platelet-rich) thrombus formation in an arteriovenous (AV) shunt in rats (ED50: 5 mg/kg) and rabbits (ED50: 0.6 mg/kg). In anaesthetised rat model, pretreatment with 5-R-Rivaroxaban (i.v., 2 mg/kg) shortened bleeding time and clotting time.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

- [1]. Perzborn, E., Strassburger, J., Wilmen, A., Pohlmann, J., Roehrig, S., SCHLEMMER, K. H., & Straub, A. (2005). In vitro and in vivo studies of the novel antithrombotic agent BAY 59 - 7939—an oral, direct Factor Xa inhibitor. *Journal of Thrombosis and Haemostasis*, 3(3), 514-521.
- [2]. Perzborn, E., et al., Reversal of rivaroxaban anticoagulation by haemostatic agents in rats and primates. *Thromb Haemost*, 2013. 110(1): p. 162-72.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage

temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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