

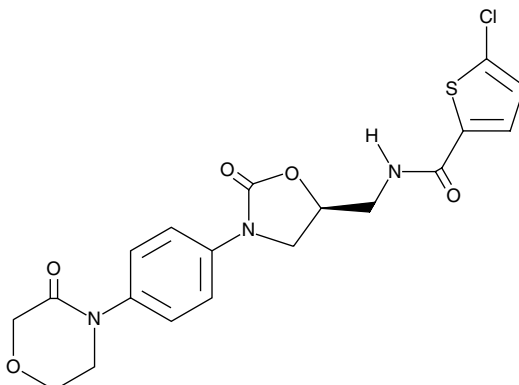
Product Information



Rivaroxaban

Item No. 16043

CAS Registry No.: 366789-02-8
Formal Name: 5-chloro-N-[[[(5S)-2-oxo-3-[4-(3-oxo-4-morpholinyl)phenyl]-5-oxazolidinyl]methyl]-2-thiophenecarboxamide]
Synonyms: BAY 59-7939, Xarelto®
MF: C₁₉H₁₈ClN₃O₅S
FW: 435.9
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 251 nm



Laboratory Procedures

For long term storage, we suggest that rivaroxaban be stored as supplied at -20°C. It should be stable for at least two years.

Rivaroxaban is supplied as a crystalline solid. A stock solution may be made by dissolving the rivaroxaban in the solvent of choice. Rivaroxaban is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of rivaroxaban in these solvents is approximately 10 mg/ml.

Rivaroxaban is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, rivaroxaban should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Rivaroxaban has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Rivaroxaban is an orally active, direct inhibitor of Factor Xa ($K_i = 0.4$ nM), which is a crucial component of the intrinsic and extrinsic pathways of the blood coagulation cascade.¹ It demonstrates >10,000-fold greater selectivity for Factor Xa compared to other related serine proteases.¹ In various animal arterial and venous thrombosis models, rivaroxaban is reported to inhibit thrombin formation without prolonging bleeding time and has been approved for clinical use as an anticoagulant in the prevention of stroke and the treatment of venous thromboembolisms.²⁻³

References

1. Turpie, A.G. Oral, direct factor Xa inhibitors in development for the prevention and treatment of thromboembolic diseases. *Arterioscler. Thromb. Vasc. Biol.* **27**(6), 1238-1247 (2007).
2. Babilonia, K. and Trujillo, T. The role of prothrombin complex concentrates in reversal of target specific anticoagulants. *Thromb. J.* **12**, 8 (2014).
3. Turpie, A.G.G. Rivaroxaban as an oral anticoagulant for stroke prevention in atrial fibrillation. *Ther. Clin. Risk Manag.* **10**, 197-205 (2014).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/16043

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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