

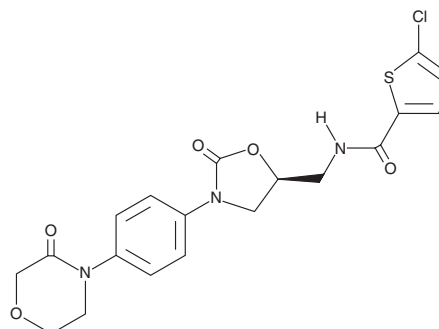
# PRODUCT INFORMATION



## 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  
**Synonym:** BAY 59-7939  
**MF:** C<sub>19</sub>H<sub>18</sub>ClN<sub>3</sub>O<sub>5</sub>S  
**FW:** 435.9  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 251 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Rivaroxaban is supplied as a crystalline solid. A stock solution may be made by dissolving the rivaroxaban in the solvent of choice, which should be purged with an inert gas. Rivaroxaban is soluble in organic solvents such as DMSO and dimethyl formamide. 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.

### Description

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.<sup>1</sup> It demonstrates >10,000-fold greater selectivity for Factor Xa compared to other related serine proteases.<sup>1</sup> 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.<sup>2,3</sup>

### 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).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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