



Product Specification Sheet

Product Name: Rivaroxaban (Xarelto)

Catalog Number: C7472

Technical information:

Chemical Formula: $C_{19}H_{18}ClN_3O_5S$

CAS #: 366789-02-8

Molecular Weight: 435.88

Purity: > 99%

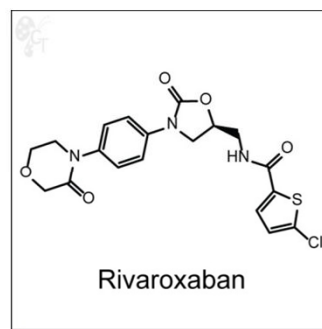
Appearance: White solid

Solubility: Soluble in DMSO up to 100 mM

Chemical Name: (S)-5-chloro-N-((2-oxo-3-(4-(3-oxomorpholino)phenyl)oxazolidin-5-yl)methyl)thiophene-2-carboxamide

Storage: For longer shelf life, store solid powder or DMSO solution at -20°C desiccated.

Shelf Life: In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.



Handling: • To make 10 mM stock solution, add 0.229mL of DMSO for each mg of Rivaroxaban (Xarelto).

- For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: Rivaroxaban is an orally-bioavailable, oxazolidinone-based inhibitor ($K_i = 0.4$ nM) of factor Xa, the factor in the blood coagulation pathway leading to thrombin generation and clot formation. [1] It is approved for both deep vein thrombosis and pulmonary embolism. It is >10000-fold selective for fXa over other biologically relevant serine proteases. Rivaroxaban inhibits prothrombinase-bound ($IC_{50} = 2.1$ nM, and clot-associated factor Xa ($IC_{50} = 75$ nM) in a dose-dependent manner. [1]

In vivo, Rivaroxaban inhibits endogenous fXa more potently in human and rabbit plasma ($IC_{50} = 21$ nM) than in rat plasma ($IC_{50} = 290$ nM). [2] In human plasma, PT and aPTT were doubled at 0.23 and 0.69 μ M, respectively.

- Reference:**
1. Perzborn et al., Rivaroxaban: a new oral factor Xa inhibitor. *Arterioscler. Thromb. Vasc. Biol.* 2010, 30, 376-381. Pubmed ID: 20139357
 2. Perzborn et al., In vitro and in vivo studies of the novel antithrombotic agent BAY 59-7939--an oral, direct Factor Xa inhibitor. *J. Thromb. Haemost.* 2005, 3(3), 514-521. Pubmed ID: 15748242

To reorder: <http://www.cellagentech.com/Rivaroxaban-Xarelto/>

For Technical Support: technical@cellagentech.com

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