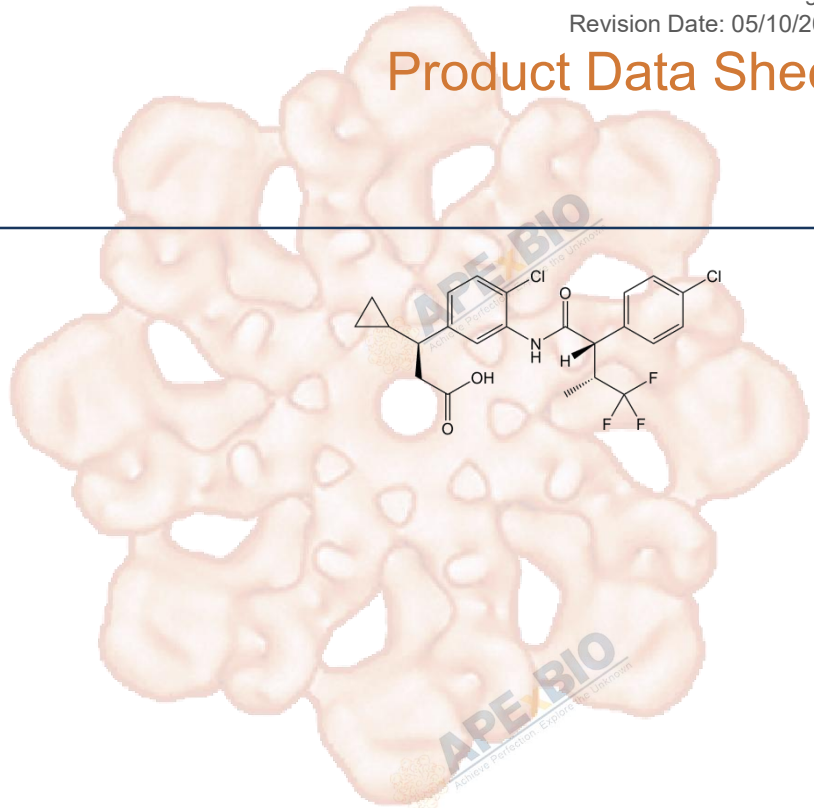


Product Data Sheet

Runcaciguat

Cat. No.:	BA5388
CAS No.:	1402936-61-1
Formula:	C ₂₃ H ₂₂ Cl ₂ F ₃ NO ₃
M.Wt:	488.33
Synonyms:	BAY 1101042
Target:	Neuroscience
Pathway:	Guanylate cyclase
Storage:	4° C, protect from light



Solvent & Solubility

In Vitro

	Solvent	Mass		
		1mg	5mg	10mg
Preparing Stock Solutions	Concentration			
	1 mM	2.0478 mL	10.2390 mL	20.4780 mL
	5 mM	0.4096 mL	2.0478 mL	4.0956 mL
	10 mM	0.2048 mL	1.0239 mL	2.0478 mL

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

Biological Activity

Shortsummary

 IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	Caco-2
Preparation method:	The compound was dissolved in DMSO and diluted to the final test concentration of 2 μM with transport buffer [Hanks' buffered salt solution, further supplemented with glucose (final concentration 19.9 mM) and HEPES (final concentration 9.8 mM)].
Reacting conditions:	2 h at 37 ° C

	Applications:	Permeability of Runcaciguat was optimized and improved during lead optimization
In Vivo	Animal experiment	
	Animal models:	Sprague-Dawley (SD) rats (male, ~260 g, 12 weeks) with ANG II-induced hypertensive nephropathy model
	Dosage form:	0.3, 1, 3 mg/kg
	Applications:	Reduced proteinuria (uPCR) by 30%-50% compared to vehicle, decreased renal injury markers (NGAL, KIM-1, OPN gene expression), and improved creatinine clearance without significant blood pressure reduction.
	Preparation method:	Oral gavage, bid, 2 weeks
	Other notes:	The technical data provided above is for reference only.

Product Citations

See more customer validations on www.apexbt.com.

References

- Hahn, M. G.; Follmann, M.; Bönig, H.; Bader, B.; Bruckmann, M.; Egerland, U.; Gellert, M.; Griebenow, N.; Gerisch, M.; Kraehling, J. R.; Koesling, D.; Straub, A.; Stasch, J.-P.; Wunder, F. Discovery of Runcaciguat (BAY 1101042): A Soluble Guanylate Cyclase Activator for Chronic Kidney Disease. *J. Med. Chem.* 2021, 64 (21), 15615 - 15629. <https://doi.org/10.1021/acs.jmedchem.1c01106>.
- Bénardeau A, et al. Runcaciguat, a novel soluble guanylate cyclase activator, shows renoprotection in hypertensive, diabetic, and metabolic preclinical models of chronic kidney disease. *Naunyn Schmiedebergs Arch Pharmacol.* 2021 Dec;394(12):2363-2379.

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 APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term 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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