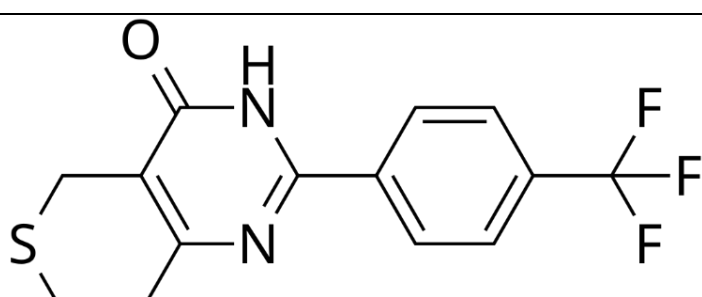


TrailBio® XAV939 User Instructions

Product Configurations

Catalog Number	Size	Quantity
TB75623	10 mg	1 vial

Product Description

Category	Specification
Product	XAV939
Synonyms	Wnt Pathway Inhibitor V; TNKS1/2 Inhibitor I
CAS Number	284028-89-3
MDL Number	MFCD16879017
Formula	C ₁₄ H ₁₁ F ₃ N ₂ OS
Molecular Weight	312.31 g/mol
Storage (Solid)	-20 °C for up to 3 years or 4 °C for up to 2 years
Storage (Solution)	-80 °C for up to 1 year or -20 °C for up to 6 months
Shipping	Ambient temperature
Chemical Structure	

Quality & Analytical Specifications

Test Parameter	Specification
Solid Appearance (Color)	White to off-white
Purity	≥98%

Solubility

Solvent	Solubility	Notes
DMSO	≤15 mg/ml (50 mM)	may require sonication and warming up to 60 °C

Solution Preparation Guide

Amount	1 mM	5 mM	10 mM
1 mg	3.202 ml	0.640 ml	0.320 ml
10 mg	32.020 ml	6.404 ml	3.202 ml
50 mg	160.097 ml	32.019 ml	16.010 ml

Biological Description

XAV939 is a potent tankyrase inhibitor that suppresses Wnt/β-catenin signaling by inhibiting TNKS1 and TNKS2. It has also been reported to enhance osteoblastic differentiation of human mesenchymal stem cells and can be used to study conditions associated with activated Wnt signaling, including cancer, fibrotic diseases, and low bone formation.

Associated Pathways & Applications

Category	Description
Associated Pathways	PARP; Wnt/β-catenin; TNKS; ARTD
Applications	Stem cell differentiation; osteoblast differentiation; fibrosis studies; epigenetics; cell cycle/DNA damage; cancer research

Targets & IC₅₀

Target	IC ₅₀
TNKS2	2 nM
TNKS1	5 nM
ARTD2	479 nM
ARTD1	5.5 μM

Notes

- When using DMSO-based stock solutions, maintain a final DMSO concentration of <0.5% in cell culture applications to minimize potential cellular toxicity, unless a higher concentration has been validated for the specific cell type.
- Avoid repeated freeze-thaw cycles. Prepare single-use aliquots when possible.
- Compound may collect on the vial cap or neck during shipping; centrifuge briefly before opening to bring contents to the bottom.
- Certificate of Analysis (CoA) available upon request. Please contact support@trailbio.com.

Also available from Trailhead Biosystems®

Cells

- TrailBio® Vascular Leptomeningeal Cells (Cat No. EC040003010)
- TrailBio® Hematopoietic Progenitor Cells (Cat No. ME060001020)
- TrailBio® Endothelial Cells (Cat No. ME010101021)

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- TrailBio® Cytarabine (Ara-C) (Cat No. TB47622)
- TrailBio® SB-431542 (Cat No. TB46416)
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