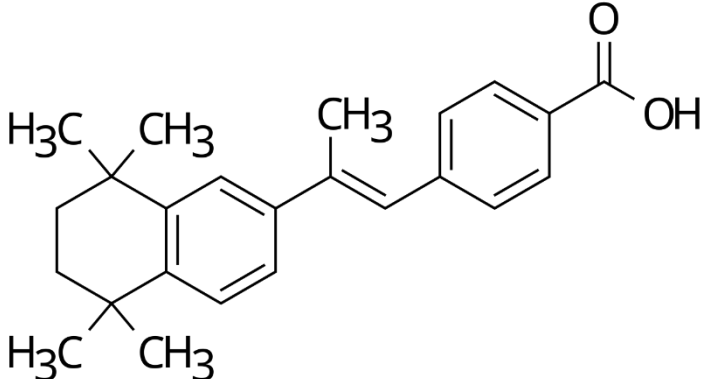


TrailBio® TTNPB User Instructions

Product Configurations

Catalog Number	Size	Quantity
TB79838	10 mg	1 vial

Product Description

Category	Specification
Product	TTNPB
Synonyms	Arotinoic acid; Arotinoid acid; Ro 13-7410; AGN191183
CAS Number	71441-28-6
MDL Number	MFCD00673917
Formula	C ₂₄ H ₂₈ O ₂
Molecular Weight	348.48 g/mol
Storage (Solid)	4 °C for up to 2 years, protect from light
Storage (Solution)	-80 °C for up to 6 months or -20 °C for up to 1 month; protect from light
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	≤8 mg/ml (23 mM)	May require sonication and warming up to 60 °C

Solution Preparation Guide

Amount	1 mM	5 mM	10 mM
1 mg	2.870 ml	0.574 ml	0.287 ml
5 mg	14.348 ml	2.870 ml	1.435 ml
10 mg	28.696 ml	5.739 ml	2.870 ml

Biological Description

TTNPB is a highly potent retinoic acid receptor (RAR) agonist that binds RAR α , RAR β , and RAR γ and activates retinoid-dependent nuclear receptor signaling. It can be used to study retinoic acid signaling, RAR-mediated transcription, nuclear receptor activity, autophagy, and apoptosis.

Associated Pathways & Applications

Category	Description
Associated Pathways	Retinoic acid/RAR signaling; RAR/RXR; nuclear receptor signaling;
Applications	RAR activation studies; retinoid signaling studies; RAR-mediated transcription; cell differentiation studies

Activity & Targets

Target	IC ₅₀
RAR α	5.1 nM
RAR β	4.5 nM
RAR γ	9.3 nM

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.
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Also available from Trailhead Biosystems®

Cells

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