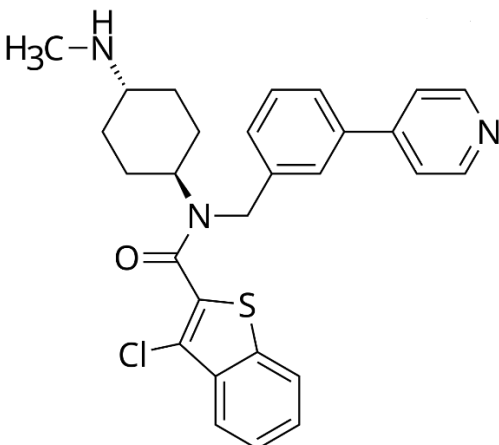


TrailBio® SAG User Instructions

Product Configurations

Catalog Number	Size	Quantity
TB88305	1 mg	1 vial

Product Description

Category	Specification
Product	SAG
Synonyms	SAG1.3, smoothened agonist
CAS Number	912545-86-9
MDL Number	MFCD22581513
Formula	C ₂₈ H ₂₈ ClN ₃ OS
Molecular Weight	490.06 g/mol
Storage (Solid)	4 °C for up to 2 years, protect from light
Storage (Solution)	-80 °C for up to 2 years or -20 °C for up to 1 year, protect from light
Shipping	Ambient temperature
Chemical Structure	

Quality & Analytical Specifications

Test Parameter	Specification
Solid Appearance (Color)	White to yellow
Purity	≥98%

Solubility

Solvent	Solubility	Notes
DMSO	≤100 mg/ml (204.06 mM)	may require sonication

Solution Preparation Guide

Amount	1 mM	5 mM	10 mM
1 mg	2.041 ml	0.408 ml	0.204 ml
5 mg	10.203 ml	2.041 ml	1.020 ml
10 mg	20.406 ml	4.081 ml	2.041 ml

Biological Description

SAG is a synthetic small-molecule agonist of the Smoothed (SMO) receptor. It binds and activates SMO, increasing Hedgehog pathway activity and influencing cellular differentiation, cell-fate specification, and tissue patterning. SAG can be used to study Hedgehog signaling, developmental biology, stem cell and neural differentiation.

Associated Pathways & Applications

Category	Description
Associated Pathways	Hedgehog/SMO; Sonic Hedgehog/GLI
Applications	Hedgehog pathway activation; stem cell differentiation; neural patterning; organoid culture; osteogenic differentiation

Activity & Targets

Target	EC ₅₀
SMO	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.

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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