PRODUCT INFORMATION



IAA-94

Item No. 17877

CAS Registry No.:	54197-31-8	
Formal Name:	2-[[(2R)-6,7-dichloro-2-cyclopentyl-2,3-	
	dihydro-2-methyl-1-oxo-1H-inden-5-yl] oxy]-acetic acid	0
Synonym:	R(+)-IAA-94	но
MF:	C ₁₇ H ₁₈ Cl ₂ O	
FW:	357.2	
Purity:	≥95%	
UV/Vis.:	λ _{max} : 224, 269, 306 nm	CI
Supplied as:	A crystalline solid	
Storage:	-20°C	
Stability:	≥4 years	
1 6 1		

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

IAA-94 is supplied as a crystalline solid. A stock solution may be made by dissolving the IAA-94 in the solvent of choice. IAA-94 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of IAA-94 in these solvents is approximately 15 mg/ml.

IAA-94 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, IAA-94 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. IAA-94 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

IAA-94 is an indanyloxyacetic acid (IAA) inhibitor of chloride channels that binds channels in bovine kidney cortex microsomes with a K, value of 1 μ M.¹ At 10 μ M, it also reversibly inhibits chloride intracellular channel proteins, which have both soluble and membrane-bound activities.^{2,3} IAA-94 is used to study the properties of chloride channels in a variety of preparations.³⁻⁵

References

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- Valenzuela, S.M., Mazzanti, M., Tonini, R., et al. The nuclear chloride ion channel NCC27 is involved in 2. regulation of the cell cycle. J. Physiol. 529(Pt. 3), 541-552 (2000).
- 3. Khamici, H.A., Brown, L.J., Hossain, K.R., et al. Memebers of the chloride intracellular ion channel protein family demonstrate glutaredoxin-like enzymatic activity. PLoS One 10(1), (2015).
- 4. Costa, J.A., Nguyen, D.A., Leal-Pinto, E., et al. Wicking: A rapid method for manually inserting ion channels into planar lipid bilayers. PLoS One 8(5), (2013).
- 5. Liskova, S., Petrova, M., Karen, P., et al. Contribution of Ca²⁺-dependent Cl⁻ channels to norepinephrineinduced contraction of femoral artery is replaced by increasing EDCF contribution during ageing. BioMed Res. Int. 289361, (2014).

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WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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