

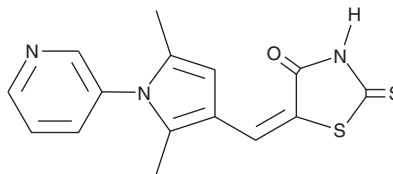
PRODUCT INFORMATION



Optovin

Item No. 14851

CAS Registry No.: 348575-88-2
Formal Name: 5-[[2,5-dimethyl-1-(3-pyridinyl)-1H-pyrrol-3-yl]methylene]-2-thioxo-4-thiazolidinone
MF: C₁₅H₁₃N₃OS₂
FW: 315.4
Purity: ≥98%
UV/Vis.: λ_{max}: 290, 420 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Optovin is supplied as a crystalline solid. A stock solution may be made by dissolving the optovin in the solvent of choice, which should be purged with an inert gas. Optovin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of optovin in these solvents is approximately 20 and 25 mg/ml, respectively.

Optovin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, optovin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Optovin has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Optovin is a TRPA1 ligand that can be reversibly photoactivated by violet (405 nm) light.¹ Optovin-treated zebrafish respond to light with vigorous motor excitation (EC₅₀ = 2 μM).¹ Optovin-treated mouse dorsal root ganglia neurons displayed increased intracellular calcium following stimulation with light but only in wild-type TRPA1 cells.¹ Optovin has been used to study the role of TRPA1 in the response of cardiac myocytes to reperfusion injury.²

References

1. Kokel, D., Cheung, C.Y.J., Mills, R., *et al.* Photochemical activation of TRPA1 channels in neurons and animals. *Nat. Chem. Biol.* **9**(4), 257-263 (2013).
2. Lu, Y., Piplani, H., McAllister, S.L., *et al.* Transient receptor potential ankyrin 1 activation within the cardiac myocyte limits ischemia-reperfusion injury in rodents. *Anesthesiology* **125**(6), 1171-1180 (2016).

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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