

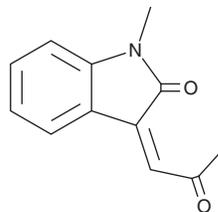
# PRODUCT INFORMATION



## Supercinnamaldehyde

Item No. 21019

**CAS Registry No.:** 70351-51-8  
**Formal Name:** 1,3-dihydro-1-methyl-3-(2-oxopropylidene)-2H-indol-2-one  
**MF:** C<sub>12</sub>H<sub>11</sub>NO<sub>2</sub>  
**FW:** 201.2  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 260, 324 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

Supercinnamaldehyde is supplied as a crystalline solid. A stock solution may be made by dissolving the supercinnamaldehyde in the solvent of choice, which should be purged with an inert gas. Supercinnamaldehyde is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of supercinnamaldehyde in ethanol is approximately 2 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Supercinnamaldehyde is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, supercinnamaldehyde should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Supercinnamaldehyde has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Supercinnamaldehyde is an activator of the transient receptor potential ankyrin 1 (TRPA1) channel (EC<sub>50</sub> = 0.8 μM) and an analog of cinnamaldehyde.<sup>1</sup> TRPA1 is a nociceptor expressed on sensory neurons and is activated by hot and cold temperatures, mechanical stimuli, and pain.<sup>2</sup>

### References

1. Macpherson, L.J., Dubin, A.E., Evans, M.J., *et al.* Noxious compounds activate TRPA1 ion channels through covalent modification of cysteines. *Nature* **445(7127)**, 541-545 (2007).
2. Baraldi, P.G., Preti, D., Materazzi, S., *et al.* Transient receptor potential ankyrin 1 (TRPA1) channel as emerging target for novel analgesics and anti-inflammatory agents. *J. Med. Chem.* **53(14)**, 5085-5107 (2010).

#### 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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