# **PRODUCT** INFORMATION



 $\alpha$ -Cyperone

Item No. 34294

| CAS Registry No.:                                                                                                                  | 473-08-5                                       |
|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Formal Name:                                                                                                                       | (4aS,7R)-4,4a,5,6,7,8-hexahydro-1,4a-dimethyl- |
|                                                                                                                                    | 7-(1-methylethenyl)-2(3H)-naphthalenone        |
| Synonym:                                                                                                                           | (+)-α-Cyperone                                 |
| MF:                                                                                                                                | $C_{15}H_{22}O$                                |
| FW:                                                                                                                                | 218.3                                          |
| Purity:                                                                                                                            | ≥98%                                           |
| UV/Vis.:                                                                                                                           | λ <sub>max</sub> : 248 nm                      |
| Supplied as:                                                                                                                       | A liquid                                       |
| Storage:                                                                                                                           | -20°C                                          |
| Stability:                                                                                                                         | ≥2 years                                       |
| Item Origin:                                                                                                                       | Plant/Cyperus rotundus                         |
| Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis. |                                                |

## Laboratory Procedures

 $\alpha$ -Cyperone is supplied as a liquid. A stock solution may be made by dissolving the  $\alpha$ -cyperone in the solvent of choice, which should be purged with an inert gas.  $\alpha$ -Cyperone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of  $\alpha$ -cyperone in these solvents is approximately 30 mg/ml.

## Description

 $\alpha$ -Cyperone is a sesquiterpenoid that has been found in C. rotundus rhizomes and has diverse biological activities.<sup>1-3</sup> It inhibits LPS-induced nuclear translocation of the NF-κB subunit p65, as well as LPS-induced production of prostaglandin  $E_2$  (PGE<sub>2</sub>; Item No. 14010) and IL-6, in RAW 264.7 cells.<sup>1</sup>  $\alpha$ -Cyperone (15 and 30  $\mu$ M) reduces hydrogen peroxide-induced production of reactive oxygen species (ROS) and apoptosis in SH-SY5Y cells.<sup>2</sup> It reduces the production of the hepatitis B surface antigen (HBsAG) in infected HepG2 2.2.15 cells (IC<sub>50</sub> = 274.7  $\mu$ M).<sup>3</sup>

## References

- 1. Jung, S.-H., Kim, S.J., Jun, B.-G., et al. α-Cyperone, isolated from the rhizomes of Cyperus rotundus, inhibits LPS-induced COX-2 expression and PGE<sub>2</sub> production through the negative regulation of NFkB signalling in RAW 264.7 cells. J. Ethnopharmacol. 147(1), 208-214 (2013).
- 2. Huang, B., Liu, J., Fu, S., et al. α-Cyperone attenuates H<sub>2</sub>O<sub>2</sub>-induced oxidative stress and apoptosis in SH-SY5Y cells via activation of Nrf2. Front. Pharmacol. 11, 281 (2020).
- 3. Xu, H.-B., Ma, Y.-B., Huang, X.-Y., et al. Bioactivity-guided isolation of anti-hepatitis B virus active sesquiterpenoids from the traditional Chinese medicine: Rhizomes of Cyperus rotundus. J. Ethnaopharmacol. **171**, 131-140 (2015).

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.

## WARRANTY AND LIMITATION OF REMEDY

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