

## Catalog # 10-3816 Guggulsterone-(Z)

CAS# 39025-23-5 (Z)-Pregna-4,17(20)-diene-3,16-dione Lot # X109375

A natural steroid from *Commiphora mukul* extract (guggulipid) which lowers cholesterol and acts as an FXR antagonist.<sup>1</sup> Attenuates astrocyte-mediated neuroinflammation.<sup>2</sup> Induces differentiation of pluripotent stem cells to dopaminergic neurons.<sup>3</sup> Produces antidepressant-like effects via activation of the BDNF signaling pathway in mouse models.<sup>4</sup>

- 1) Urizar et al. (2002), A Natural Product That Lowers Cholesterol as an Antagonist Ligand for FXR; Science, 296 1703
- 2) Liu et al. (2018), *Z*-guggulsterone attenuates astrocytes-mediated neuroinflammation after ischemia by inhibiting toll-like receptor 4 pathway; J. Neurochem., **147** 803
- 3) Agbay et al. (2018), Guggulsterone-releasing Microspheres Direct the Differentiation of Human Induced Pluripotent Stem Cells Into Neural Phenotypes; Biomed. Mater., **13** 034104
- 4) Liu et al. (2017), Z-Guggulsterone Produces Antidepressant-Like Effects in Mice through Activation of the BDNF Signaling Pathway; Int. J. Neuropsychopharmacol., **20** 485

## **PHYSICAL DATA**

NMR: (Conforms)

Solubility: DMSO (up to 6 mg/ml with warming) or in Ethanol (3 mg/ml with warming)

Physical Description: Off-white solid

Storage and Stability: Store as supplied desiccated at -20°C for up to 3 years from the date of purchase. Solutions in

DMSO or ethanol may be stored at -20°C for up to 3 months.

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