

**Catalog # 10-3075**

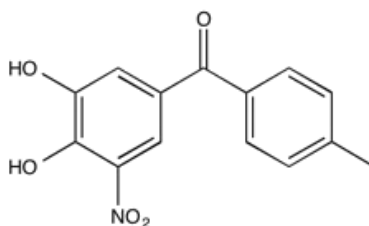
**Tolcapone**

CAS# 134308-13-7

(3,4-Dihydroxy-5-nitrophenyl)(4-methylphenyl)methanone

Ro 40-7592

Lot # X106523



Catechol O-methyltransferase inhibitor (COMT), inhibiting both brain and peripheral enzymes.<sup>1</sup> Potent inhibitor of alpha-synuclein and beta-amyloid oligomerization and fibrillogenesis protecting against extracellular toxicity.<sup>2</sup> Binds to transthyretin (TTR) with high affinity (21 to 58 nM) and inhibits TTR aggregation in human plasma and prevents TTR-induced cytotoxicity *in vitro*. Stabilizes TTR in mice and humans *in vivo*.<sup>3</sup> Inhibits O-methylation of exogenous polyphenols such as EGCG.<sup>4</sup> Cell permeable. Orally bioavailable

- 1) Manisto et al. (1992), *Different in vivo properties of three new inhibitors of catechol O-methyltransferase in the rat*, Br. J. Pharmacol., **105** 569
- 2) Giovanni et al. (2010), *Entacapone and tolcapone, two catechol O-methyltransferase inhibitors, block fibril formation of alpha-synuclein and beta-amyloid and protect against amyloid-induced toxicity*; J. Biol. Chem., **285** 14941
- 3) Sant'Anna et al. (2016), *Repositioning tolcapone as a potent inhibitor of transthyretin amyloidogenesis and associated cellular toxicity*; Nat. Commun., **7** 10787
- 4) Forester and Lambert (2015), *The catechol-O-methyltransferase inhibitor, tolcapone, increases the bioavailability of unmethylated (-)-epigallocatechin-3-gallate in mice*; Funct. Foods, **17** 183

**PHYSICAL DATA**

|                        |                                                                                                                                                              |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Molecular Weight:      | 273.24                                                                                                                                                       |
| Molecular Formula:     | C <sub>14</sub> H <sub>11</sub> NO <sub>5</sub>                                                                                                              |
| Purity:                | 98% by TLC                                                                                                                                                   |
|                        | NMR: (Conforms)                                                                                                                                              |
| Solubility:            | Soluble in DMSO (up to 25 mg/ml) or in Ethanol (up to 25 mg/ml)                                                                                              |
| Physical Description:  | Yellow solid                                                                                                                                                 |
| Storage and Stability: | Store as supplied desiccated at -20°C for up to 1 year from the date of purchase.<br>Solutions in DMSO or ethanol may be stored at -20°C for up to 2 months. |

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