Catalog # 10-3075

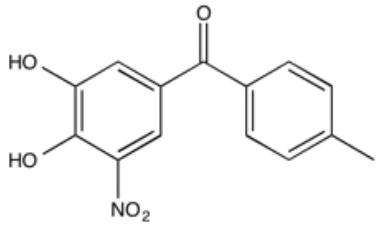
Tolcapone

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.[1] Potent inhibitor of alpha-synuclein and beta-amyloid oligomerization and fibrillogenesis protecting against extracellular toxicity.[2] 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.*[3] Inhibits O-methylation of exogenous polyphenols such as EGCG.[4] 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-methyltranseferase inhibitor, tolcapone, increases the bioavailability of unmethylated (-)-epigallocatechin-3-gallate in mice*; Funct. Foods, **17** 183

PHYSICAL DATA

Molecular Weight:	273.24
Molecular Formula:	$C_{14}H_{11}NO_5$
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.
	Solutions in DMSO or ethanol may be stored at -20°C for up to 2 months.

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