

Store at  
-20°C  
#96692**Entacapone**

10 mg



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**Background**

Entacapone, also known as OR-611, is a catechol O-methyltransferase (COMT) inhibitor with IC<sub>50</sub> values ranging from 10 nM to 160 nM for rat duodenum and rat liver COMT, respectively (1,2). Taken as an adjuvant with levodopa/carbidopa therapy, entacapone blocks COMT methylation and subsequent degradation of plasma levodopa, prolonging and improving therapeutic response in Parkinson's patients (3,4). Entacapone inhibition of COMT also works synergistically with (-)-Epigallocatechin-3-gallate (EGCG) to inhibit human and murine lung cancer cell growth *in vitro* (5).

**Molecular Formula**

C<sub>14</sub>H<sub>15</sub>N<sub>3</sub>O<sub>5</sub>

**Molecular Weight**

305.3 g/mol

**Purity**

>98%

**CAS**

130929-57-6

**Solubility**

Soluble in DMSO at 30 mg/ml or ethanol at 3 mg/ml.

**Storage**

Store lyophilized at -20°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20°C and use within 1 month to prevent loss of potency. *Aliquot to avoid multiple freeze/thaw cycles.*

**Directions for Use**

Entacapone is supplied as a lyophilized powder. For a 30 mM stock, reconstitute 10 mg of powder in 1.09 ml of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.

**Background References**

1. Männistö, P.T. et al. (1992) *Br J Pharmacol* 105, 569-74.
2. Nissinen, E. et al. (1992) *Naunyn Schmiedeberg's Arch Pharmacol* 346, 262-6.
3. Najib, J. (2001) *Clin Ther* 23, 802-32; discussion 771.
4. Trenkwalder, C. et al. (2019) *Neurology* 92, e1487-e1496.
5. Forester, S.C. and Lambert, J.D. (2014) *Carcinogenesis* 35, 365-72.

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