

Store at
-20°C

Entacapone

#96692

10 mg

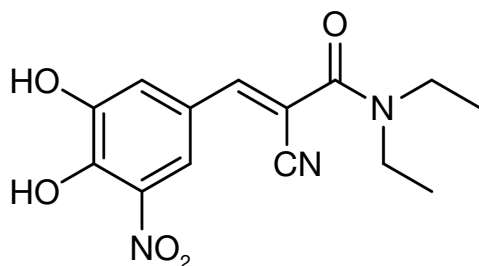
Cell Signaling
TECHNOLOGY®Support: +1-978-867-2388 (U.S.)
www.cellsignal.com/supportOrders: 877-616-2355 (U.S.)
orders@cellsignal.com

New 04/20

For Research Use Only. Not For Use In Diagnostic Procedures.

Background: Entacapone, also known as OR-611, is a catechol O-methyltransferase (COMT) inhibitor with IC_{50} 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: $C_{14}H_{15}N_3O_5$



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 Schmiedebergs 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.

Thank you for your recent purchase. If you would like to provide a review visit cellsignal.com/comments.

www.cellsignal.com

© 2020 Cell Signaling Technology, Inc.

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.