COMT

Catechol-O-methyltransferase

Catechol O-methyltransferase (COMT) is the enzyme responsible for the O-methylation of endogenous neurotransmitters and of xenobiotic substances and hormones incorporating catecholic structures. COMT is present in mammals as soluble (S-COMT) and membrane-bound (MB-COMT) forms. S-COMT is the predominant form of COMT in the peripheral organs and MB-COMT is more abundant in the Central Nervous System.

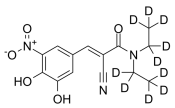
Physiological substrates of COMT include L-dopa, catecholamines (dopamine, norepinephrine, and epinephrine), their hydroxylated metabolites, catecholestrogens, ascorbic acid, and dihydroxyindolic intermediates of melanin. Specifically, COMT plays a critical role in the inactivation and metabolism of dopamine and other catechol compounds. The enzyme reduces a catechol molecule in order to prevent genomic damage through DNA adduct formation or via oxygen radicals produced from the redox cycling of catechols. COMT is a druggable biological target for the treatment of various central and peripheral nervous system disorders, including Parkinson's disease, depression, schizophrenia, and other dopamine deficiency-related diseases.

COMT Inhibitors

(E)-Entacapone-d10

Cat. No.: HY-14280S2

Entacapone-d10 is the deuterium labeled Entacapone. Entacapone is a potent, reversible, peripherally acting and orally active **catechol-O-methyltransferase (COMT)** inhibitor.



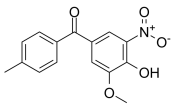
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

3-O-Methyltolcapone

(Ro 40-7591)

Cat. No.: HY-100642

3-O-Methyltolcapone (Ro 40-7591) is a metabolite of Tolcapone. Tolcapone is an orally active, reversible, selective and potent **COMT** inhibitor. Tolcapone crosses the blood-brain barrier, and can be used for treatment of Parkinson's disease.



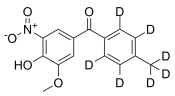
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

3-O-Methyltolcapone D7

(Ro 40-7591 D7)

Cat. No.: HY-100642S

3-O-Methyltolcapone D7 (Ro 40-7591 D7) is a deuterium labeled 3-O-Methyltolcapone. 3-O-Methyltolcapone is a metabolite of Tolcapone. Tolcapone is an orally active, reversible, selective and potent **COMT** inhibitor.



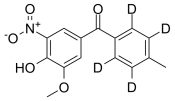
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

3-O-Methyltolcapone-d4

(Ro 40-7591-d4)

Cat. No.: HY-100642S1

3-O-Methyltolcapone-d4 (Ro 40-7591-d4) is the deuterium labeled 3-O-Methyltolcapone. 3-O-Methyltolcapone (Ro 40-7591) is a metabolite of Tolcapone. Tolcapone is an orally active, reversible, selective and potent **COMT** inhibitor.

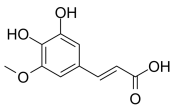


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

5-Hydroxyferulic acid

Cat. No.: HY-133068

5-Hydroxyferulic acid is a hydroxycinnamic acid and is a metabolite of the phenylpropanoid pathway. 5-Hydroxyferulic acid is a precursor in the biosynthesis of sinapic acid and is also a **COMT** non-esterifed substrate.

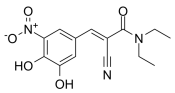


Purity: 99.80%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg

Entacapone

Cat. No.: HY-14280

Entacapone is a potent, reversible, peripherally acting and orally active **catechol-O-methyltransferase (COMT)** inhibitor. Entacapone inhibits COMT from rat brain, erythrocytes and liver with $\mathbf{IC_{50}}$ values of 10 nM, 20 nM, and 160 nM, respectively.

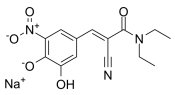


Purity: 99.97%
Clinical Data: Launched
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

Entacapone sodium salt

Cat. No.: HY-14280A

Entacapone sodium salt is a potent, reversible, peripherally acting and orally active **catechol-O-methyltransferase (COMT)** inhibitor.

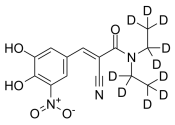


Purity: >98%
Clinical Data: Launched
Size: 1 mg, 5 mg

Entacapone-d10

Cat. No.: HY-14280S

Entacapone-d10 is the deuterium labeled Entacapone. Entacapone is a potent, reversible, peripherally acting and orally active **catechol-O-methyltransferase (COMT)** inhibitor.

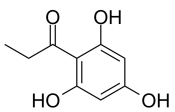


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Flopropione

Cat. No.: HY-100562

Flopropione is a **5-HT receptor** antagonist and also a **catechol-o-methyltransferase (COMT)** inhibitor. Flopropione also as an antispasmodic agent.



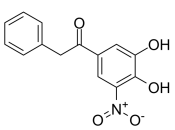
Purity: 98.93%
Clinical Data: Launched
Size: 10 mM × 1 mL, 100 mg

Nebicapone

(BIA 3-202)

Cat. No.: HY-106405

Nebicapone (BIA 3-202), a reversible **catechol-O-methyltransferase (COMT)** inhibitor, is mainly metabolized by glucuronidation.



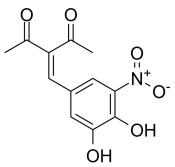
Purity: >98%
Clinical Data: Phase 2
Size: 1 mg, 5 mg

Tel: 609-228-6898 Fax: 609-228-5909 Email: sales@MedChemExpress.com

Nitecapone

(OR-462) **Cat. No.:** HY-106842

Nitecapone (OR-462) is an orally active and short-acting **catechol-O-methyltransferase (COMT)** inhibitor with gastroprotective and antioxidant properties. Nitecapone (OR-462) scavenges reactive oxygen and nitric radicals and prevents lipid peroxidation.

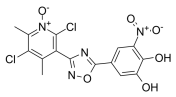


Purity: 99.32%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg

Opicapone

(BIA 9-1067) **Cat. No.:** HY-14896

Opicapone (BIA 9-1067) is a potent third-generation catechol-O-methyltransferase (**COMT**) inhibitor for the research of Parkinson's disease and motor fluctuations. Opicapone decreases the ATP content of the cells with an IC_{50} of 98 μM.

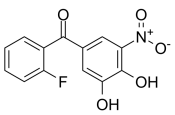


Purity: 99.64%
Clinical Data: Launched
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Ro 41-0960

Cat. No.: HY-125339

Ro 41-0960 is a selective catechol-O-methyltransferase(COMT) inhibitor.

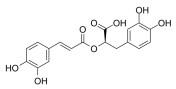


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Rosmarinic acid

(Labiatenic acid) **Cat. No.:** HY-N0529

Rosmarinic acid is a widespread phenolic ester compound in the plants. Rosmarinic acid inhibits **MAO-A**, **MAO-B** and **COMT** enzymes with IC_{50}s of 50.1, 184.6 and 26.7 μM, respectively.

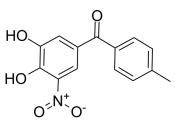


Purity: 99.70%
Clinical Data: Phase 4
Size: 10 mM × 1 mL, 50 mg, 100 mg

Tolcapone

(Ro 40-7592) **Cat. No.:** HY-17406

Tolcapone (Ro 40-7592) is a selective, orally active and powerful mixed (peripheral and central) **COMT** inhibitor with an IC_{50} of 773nM in the liver. Tolcapone is also a potent inhibitor of α-syn and Aβ42 oligomerization and fibrillogenesis.

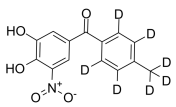


Purity: 99.74%
Clinical Data: Launched
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

Tolcapone D7

(Ro 40-7592 D7) **Cat. No.:** HY-17406S

Tolcapone D7 (Ro 40-7592 D7) is a deuterium labeled Tolcapone. Tolcapone is a selective, potent and orally active **COMT** inhibitor.

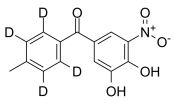


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Tolcapone-d4

(Ro 40-7592-d4) **Cat. No.:** HY-17406S1

Tolcapone-d4 (Ro 40-7592-d4) is the deuterium labeled Tolcapone. Tolcapone (Ro 40-7592) is a selective, orally active and powerful mixed (peripheral and central) **COMT** inhibitor with an IC_{50} of 773nM in the liver.



Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 10 mg