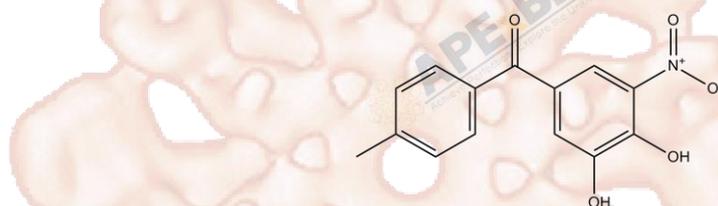


## Product Data Sheet

### Tolcapone

<b>Cat. No.:</b>	A4383
<b>CAS No.:</b>	134308-13-7
<b>Formula:</b>	C <sub>14</sub> H <sub>11</sub> NO <sub>5</sub>
<b>M.Wt:</b>	273.24
<b>Synonyms:</b>	Ro 40-7592, Ro-40-7592
<b>Target:</b>	Metabolism
<b>Pathway:</b>	Transferase
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

insoluble in H<sub>2</sub>O;  $\geq 12$  mg/mL in DMSO;  $\geq 5.78$  mg/mL in EtOH with gentle warming and ultrasonic

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	<b>Concentration</b>			
	<b>1 mM</b>	3.6598 mL	18.2989 mL	36.5979 mL
	<b>5 mM</b>	0.7320 mL	3.6598 mL	7.3196 mL
	<b>10 mM</b>	0.3660 mL	1.8299 mL	3.6598 mL

Please refer to the solubility information to select the appropriate solvent.

### Biological Activity

Shortsummary

COMT inhibitor

IC<sub>50</sub> & Target

In Vitro

#### Cell Viability Assay

Cell Line:	SH-SY5Y neuroblastoma cells
Preparation method:	Soluble in DMSO > 10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	6 days

	Applications:	Tolcapone as an inhibitor of COMT shows a protective effect against HIV associated dendritic and synaptic damage.
In Vivo	<b>Animal experiment</b>	
	Animal models:	Male albino rats (Fii-albino, 270-300 g)
	Dosage form:	Orally in a final volume of 2 ml/kg.
	Applications:	Tolcapone is very effective in increasing the striatal extracellular levels of L-DOPA and dopamine in the rat, when given in combination with L-DOPA+benserazide.
	Preparation method:	Suspended in saline containing 1% Tween 80 using a glass homogenizer.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

## Product Citations

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

1. Vieira-Coelho MA, Soares-da-Silva P. Ontogenic aspects of liver and kidney catechol-O-methyltransferase sensitivity to tolcapone. Br J Pharmacol. 1996 Feb;117(3):516-520.
2. Lee TT, Chana G, Gorry PR etc. Inhibition of catechol-O-methyl transferase (COMT) by tolcapone restores reductions in microtubule-associated protein 2 (MAP2) and synaptophysin (SYP) following exposure of neuronal cells to neurotropic HIV. J Neurovirol. 2015 Jun 3.
3. Napolitano A, Zürcher G, Da Prada M. Effects of tolcapone, a novel catechol-O-methyltransferase inhibitor, on striatal metabolism of L-dopa and dopamine in rats. Eur J Pharmacol. 1995 Feb 6;273(3):215-21.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

*Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.*

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**APEx BIO Technology**

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