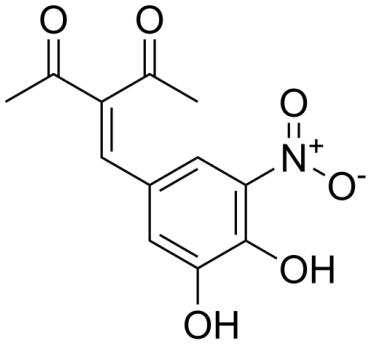
Data Sheet

Product Name:	Nitecapone
Cat. No.:	CS-0026698
CAS No.:	116313-94-1
Molecular Formula:	$C_{12}H_{11}NO_6$
Molecular Weight:	265.22
Target:	COMT
Pathway:	Metabolic Enzyme/Protease; Neuronal Signaling
Solubility:	DMSO : 50 mg/mL (188.52 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

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[1][2][3]. **In Vitro:** Nitecapone (1-100 μM) reducesd GSH (reduced glutathione) depletion induced by ROO^- by 11-38% and oxidation to oxidized glutathione (GSSG) by 32-45%[1]. **In Vivo:** Nitecapone (30 mg/kg, ip daily for 13 days) reduces development and symptoms of neuropathic pain after spinal nerve ligation in rats[3].

References:

[1]. Y J Suzuki, et al. Antioxidant properties of nitecapone (OR-462). Free Radic Biol Med. 1992 Nov;13(5):517-25.

[2]. Marcocci L, et al. Nitecapone: a nitric oxide radical scavenger. Biochemistry and Molecular Biology International, 01 Oct 1994, 34(3):531-541.

[3]. Oleg Kambur, et al. Nitecapone reduces development and symptoms of neuropathic pain after spinal nerve ligation in rats. Eur J Pain. 2011 Aug;15(7):732-40.

CAIndexNames:

2,4-Pentanedione, 3-[(3,4-dihydroxy-5-nitrophenyl)methylene]-

SMILES:

CC(/C(C(C)=O)=C/C1=CC([N+]([O-])=O)=C(O)C(O)=C1)=O

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