
Product Data Sheet

Product Name: Lurasidone D8 Hydrochloride (SM-13496 D8)

Cat. No.: GC34290

Chemical Properties

Cas. No.

SMILES O=C([C@H]([C@H]1CC[C@@H]2C1)[C@H]2C3=O)N3C[C@@H]4CCCC[C@H]4CN(C([2H])([2H])C5([2H])([2H])C([2H])([2H])C([2H])([2H])N5C6=NSC7=CC=CC=C76.Cl

Formula	C ₂₈ H ₂₉ D ₈ ClN ₄ O ₂ S	M.Wt	537.19
---------	--	------	--------

Solubility	Soluble in DMSO	Storage	Store at -20°C
------------	-----------------	---------	----------------

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Background

Lurasidone-dg is intended for use as an internal standard for the quantification of lurasidone by GC- or LC-MS. Lurasidone is an atypical antipsychotic that binds to dopamine D₂, serotonin (5-HT) receptor subtypes 5-HT_{2A}, 5-HT_{1A}, and 5-HT₇, and α_{2C}-adrenergic receptors (K_is = 1.68, 2.03, 6.75, 0.495, and 10.8 nM, respectively).¹ *In vivo*, pre-training administration of lurasidone (1 and 3 mg/kg) reverses impairment in step-through latency and passive avoidance in a foot shock test induced by MK-801 in rats. It reverses MK-801-induced learning impairment in the Morris water maze as well as reference and working memory impairment in the radial arm maze in rats.² Lurasidone also decreases immobility in the tail suspension and forced swim tests, indicating antidepressant-like activity in mice.³ Formulations containing lurasidone have been used in the treatment of schizophrenia and mood disorders.

1. Ishiyama, T., Tokuda, K., Ishibashi, T., et al. Lurasidone (SM-13496), a novel atypical antipsychotic drug, reverses MK-801-induced impairment of learning and memory in the

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

rat passive-avoidance test *Eur. J. Pharmacol.* 572(2-3)160-170(2007) 2. Enomoto, T., Ishibashi, T., Tokuda, K., et al. Lurasidone reverses MK-801-induced impairment of learning and memory in the Morris water maze and radial-arm maze tests in rats *Behav. Brain Res.* 186(2)197-207(2008) 3. Cates, L.N., Roberts, A.J., Huitron-Resendiz, S., et al. Effects of lurasidone in behavioral models of depression. Role of the 5-HT7 receptor subtype *Neuropharmacology* 70 211-217(2013)

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA