## **Product** Data Sheet

## **Dapoxetine**

Cat. No.: HY-B0304

CAS No.: 119356-77-3

Molecular Formula:  $C_{21}H_{23}NO$ Molecular Weight: 305.41

Target: Serotonin Transporter
Pathway: Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

## **BIOLOGICAL ACTIVITY**

Description	Dapoxetine (LY-210448) is an orally active and selective serotonin reuptake inhibitor (SSRI). Dapoxetine can be used for the research of premature ejaculation (PE) $^{[1]}$ .	
In Vitro	Dapoxetine binds to 5-HT, norepinephrine, and dopamine reuptake transporters and inhibits 5-HT, norepinephrine, and dopamine uptake with an order of potency: 5-HT >norepinephrine dopamine.  Dapoxetine inhibits the uptake of [³H]5-HT by the 5-HT reuptake transporter with a value of 1.12 nM, and Dapoxetine inhibits the uptake of [³H]norepinephrine into cells utilizing the norepinephrine reuptake transporter and uptake of [³H]dopamine by the dopamine reuptake transporter with IC <sub>50</sub> values of 202 nM and 1720 nM, respectively. [1]  MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	Dapoxetine (oral gavage; 1-10 mg/kg; once daily) significantly inhibits testosterone mediated increase in the prostate weight and relative prostate weight and attenuates testosterone-induced prostatic hyperplasia in rats <sup>[2]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Adult male Wistar rats <sup>[2]</sup>
	Dosage:	1 mg/kg, 5 mg/kg, 10 mg/kg
	Administration:	Oral gavage; 1-10 mg/kg; once daily
		Reverted most of the changes made by testosterone injection.

## **REFERENCES**

[1]. Muammer Kendirci, et al. Dapoxetine, a novel selective serotonin transport inhibitor for the treatment of premature ejaculation. Ther Clin Risk Manag. 2007 Jun;3(2):277-89.

[2]. Rabab H Sayed, et al. Dapoxetine attenuates testosterone-induced prostatic hyperplasia in rats by the regulation of inflammatory and apoptotic proteins. Toxicol Appl Pharmacol. 2016 Nov 15;311:52-60.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

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