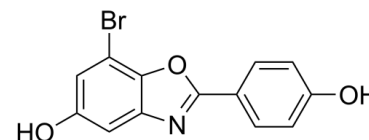


## Data Sheet

<b>Product Name:</b>	WAY-200070
<b>Cat. No.:</b>	CS-6398
<b>CAS No.:</b>	440122-66-7
<b>Molecular Formula:</b>	C <sub>13</sub> H <sub>8</sub> BrNO <sub>3</sub>
<b>Molecular Weight:</b>	306.11
<b>Target:</b>	Estrogen Receptor/ERR
<b>Pathway:</b>	Vitamin D Related/Nuclear Receptor
<b>Solubility:</b>	DMSO : ≥ 31 mg/mL



### BIOLOGICAL ACTIVITY:

WAY-200070 is a selective estrogen receptor  $\beta$  (**ER $\beta$** ) agonist with an **IC<sub>50</sub>** of 2.3 nM. IC<sub>50</sub> & Target:IC<sub>50</sub>: 2.3 nM (ER $\beta$ ), 155 nM (ER $\alpha$ )<sup>[1]</sup> *In Vivo*: Administration of WAY-200070 (30 mg/kg s.c.) causes nuclear translocation of ERR $\beta$  receptors in WT mice.

Administration of WAY-200070 (30 mg/kg s.c.) produces a delayed 50% increase in dopamine in the striatum of wild type mice. WAY-200070 (30 mg/kg s.c.) reduces immobility time in the mouse tail suspension test indicating an antidepressant-like effect<sup>[1]</sup>. In gonadally intact male and female mice WAY-200070 increases agonistic behaviors such as pushing down and aggressive grooming, while leaving attacks unaffected<sup>[2]</sup>. Ovariectomized (ovx) mice treated with PPT fail to learn the socially acquired preference, while WAY-200070-treated ovx mice shows a two-fold prolonged preference for the food eaten by their demonstrator<sup>[3]</sup>. WAY-200070, shows significantly decreased anxiety-like behaviors in both the open-field and elevated plus maze and significantly less depressive-like behaviors in the forced swim test<sup>[4]</sup>.

### PROTOCOL (Extracted from published papers and Only for reference)

**Animal Administration:**<sup>[1][4]</sup> Rats: Beginning 1 wk after ovariectomy, animals are given a single daily sc injection of hydroxypropyl betacyclodextran [vehicle; 27% (wt/vol) in saline; DPN (2.0 mg/kg), S-DPN (2.0 mg/kg), R-DPN (2.0 mg/kg), WAY-200070-3 (2.0 mg/kg), or PPT (1.0 mg/kg) in a total volume of 0.2 mL. Three hours after the daily treatment injection on d 4-7, animals undergo behavioral testing<sup>[4]</sup>.

Mice: WAY-200070 is dissolved in a 10% ethanol/90% miglyol solution. WAY-200070 or vehicle is injected subcutaneously at a volume of 10 mL/kg body weight. Male ER $\beta$ KO, ER $\alpha$ KO (both in C57BL/6 background) and WT C57BL/6 mice are injected with vehicle or WAY-200070 (30 mg/kg s.c.). After 15 min, the animals are sacrificed and the striatum is dissected and quickly frozen in liquid nitrogen and stored at -70°C for subsequent assay<sup>[1]</sup>.

### References:

[1]. Hughes ZA, et al. WAY-200070, a selective agonist of estrogen receptor beta as a potential novel anxiolytic/antidepressant agent. *Neuropharmacology*. 2008 Jun;54(7):1136-42.

[2]. Clipperton Allen AE, et al. Agonistic behavior in males and females: effects of an estrogen receptor beta agonist in gonadectomized and gonadally intact mice. *Psychoneuroendocrinology*. 2010 Aug;35(7):1008-22.

[3]. Clipperton AE, et al. Differential effects of estrogen receptor alpha and beta specific agonists on social learning of food preferences in female mice. Neuropsychopharmacology. 2008 Sep;33(10):2362-75.

[4]. Weiser MJ, et al. Estrogen receptor-beta agonist diarylpropionitrile: biological activities of R- and S-enantiomers on behavior and hormonal response to stress. Endocrinology. 2009 Apr;150(4):1817-25.

**CAIndexNames:**

5-Benzoxazolol, 7-bromo-2-(4-hydroxyphenyl)-

**SMILES:**

OC1=CC(Br)=C(OC(C2=CC=C(O)C=C2)=N3)C3=C1

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

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