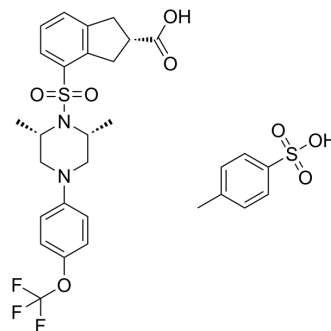


## KD-3010

<b>Cat. No.:</b>	HY-111068
<b>CAS No.:</b>	934760-92-6
<b>Molecular Formula:</b>	C <sub>30</sub> H <sub>33</sub> F <sub>3</sub> N <sub>2</sub> O <sub>8</sub> S <sub>2</sub>
<b>Molecular Weight:</b>	670.72
<b>Target:</b>	PPAR
<b>Pathway:</b>	Cell Cycle/DNA Damage; Vitamin D Related/Nuclear Receptor
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



## BIOLOGICAL ACTIVITY

<b>Description</b>	KD-3010 is a potent, orally active, and selective PPAR $\delta$ agonist.
<b>IC<sub>50</sub> &amp; Target</b>	PPAR $\delta$
<b>In Vivo</b>	<p>To determine whether PPAR<math>\delta</math> agonists are beneficial in experimental liver fibrosis, mice are treated orally with a PPAR<math>\delta</math> agonist, KD-3010, or with the well-validated PPAR<math>\delta</math> agonist GW501516. KD-3010, but not GW501516, shows hepatoprotective and antifibrotic effects in liver fibrosis induced by carbon tetrachloride (CCl<sub>4</sub>) or bile duct ligation (BDL). Liver injury is induced by repeated injections of CCl<sub>4</sub>, and mice are treated daily with vehicle, the widely used PPAR<math>\delta</math> agonist GW501516, or the PPAR<math>\delta</math> agonist KD-3010 by oral gavage. Control oil-injected mice do not show any liver damage. Liver injury consisting of hepatocyte death and inflammation is seen in the vehicle- or GW501516-treated group injected with CCl<sub>4</sub> on H&amp;E-stained liver sections but is markedly reduced in the KD3010-treated group<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

## PROTOCOL

<b>Animal Administration</b> <sup>[1]</sup>	<p>Mice<sup>[1]</sup></p> <p>Male 11-wk-old C57/B6 mice are treated with CCl<sub>4</sub> (2 <math>\mu</math>L/g body weight; 1:4 dilution with corn oil) or with corn oil as control (2 <math>\mu</math>L/g body weight) by i.p. injection every third day. Injections are repeated for a total of 12 times. Mice are injected i.p. 12 times with oil as control (n=4 in each group) or with CCl<sub>4</sub> and are administered vehicle (n=14), GW501516 (2 mg/kg; n=12), or KD3010 (10 mg/kg; n=11) daily by oral gavage<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
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## REFERENCES

[1]. Iwaisako K, et al. Protection from liver fibrosis by a peroxisome proliferator-activated receptor  $\delta$  agonist. Proc Natl Acad Sci U S A. 2012 May 22;109(21):E1369-76.

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

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