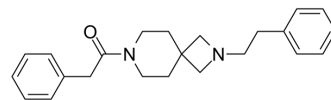


## AB21

<b>Cat. No.:</b>	HY-149854
<b>Molecular Formula:</b>	C <sub>23</sub> H <sub>28</sub> N <sub>2</sub> O
<b>Molecular Weight:</b>	348.48
<b>Target:</b>	Sigma Receptor
<b>Pathway:</b>	Neuronal Signaling
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	AB21 is a potent and selective S1R antagonist with K <sub>i</sub> s of 13, 102 nM for S1R and S2R. AB21 has the effect of reducing mechanical hypersensitivity <sup>[1]</sup> .									
<b>IC<sub>50</sub> &amp; Target</b>	Sigma 1 Receptor 13 nM (K <sub>i</sub> )	Sigma 2 Receptor 102 nM (K <sub>i</sub> )								
<b>In Vitro</b>	AB21 shows K <sub>i</sub> s of 12 nM and 14 nM with or without Phenytoin in the S1R Radioligand Binding Assay <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.									
<b>In Vivo</b>	<p>AB21 (20 mg/kg, s.c., administered 30 min before the injection of Capsaicin (HY-10448)) reverses mechanical allodynia in Capsaicin (HY-B0448)-induced pain model, and exhibits higher potency than BD1063 dhydrochloride (HY-18101A)<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Capsaicin-induced mechanical hypersensitivity model in mice<sup>[1]</sup></td> </tr> <tr> <td>Dosage:</td> <td>20 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Subcutaneous injection (s.c.); administered 30 min before the injection of capsaicin</td> </tr> <tr> <td>Result:</td> <td>Result: Showed complete reversal of the mechanical hypersensitivity reaction and the dose administered was half that of BD-1063 (40 mg/kg).</td> </tr> </table>		Animal Model:	Capsaicin-induced mechanical hypersensitivity model in mice <sup>[1]</sup>	Dosage:	20 mg/kg	Administration:	Subcutaneous injection (s.c.); administered 30 min before the injection of capsaicin	Result:	Result: Showed complete reversal of the mechanical hypersensitivity reaction and the dose administered was half that of BD-1063 (40 mg/kg).
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### REFERENCES

[1]. Dichiara M, et al. Synthesis, Computational Insights, and Evaluation of Novel Sigma Receptors Ligands. ACS Chem Neurosci. 2023 May 17;14(10):1845-1858.

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

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