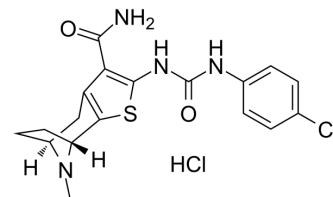


## ORC-13661 hydrochloride

Cat. No.:	HY-129677
CAS No.:	1589571-77-6
Molecular Formula:	C <sub>18</sub> H <sub>20</sub> Cl <sub>2</sub> N <sub>4</sub> O <sub>2</sub> S
Molecular Weight:	427.35
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

Description	ORC-13661 hydrochloride is a hair cell protector. ORC-13661 hydrochloride protects sensory hair cells from aminoglycoside and <a href="#">Cisplatin</a> (HY-17394) ototoxicity. ORC-13661 hydrochloride is a reversibly mechanoelectrical transducer (MET) channel permeant blocker <sup>[1]</sup> .								
In Vitro	<p>ORC-13661 (0.10-8.3 μM; wild type *AB Zebrafish hair cells) hydrochloride protects zebrafish hair cells from multiple aminoglycosides (AGs)<sup>[1]</sup>.</p> <p>ORC-13661 (0.10-20 μM) hydrochloride protects zebrafish lateral line hair cells and mammalian hair cells from <a href="#">Cisplatin</a> (HY-17394)<sup>[1]</sup>.</p> <p>ORC-13661 (0.3 and 3 μM) hydrochloride is a reversible blocker of the MET channel of auditory hair cells. ORC-13661 hydrochloride blocks OHC MET currents. ORC-13661 hydrochloride MET channel block is voltage dependent and permeant<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>								
In Vivo	<p>ORC-13661 (0.2-5 mg/kg; p.o.; daily, for 10 d) hydrochloride protects hearing from amikacin in rats in a dose-dependent manner<sup>[1]</sup>.</p> <p>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>Male Fischer 344 rat<sup>[1]</sup></td></tr> <tr> <td>Dosage:</td><td>0.2, 1, and 5 mg/kg</td></tr> <tr> <td>Administration:</td><td>Oral administration; daily, for 10 days</td></tr> <tr> <td>Result:</td><td>Protected hearing in mammals from different AG antibiotics.</td></tr> </table>	Animal Model:	Male Fischer 344 rat <sup>[1]</sup>	Dosage:	0.2, 1, and 5 mg/kg	Administration:	Oral administration; daily, for 10 days	Result:	Protected hearing in mammals from different AG antibiotics.
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Dosage:	0.2, 1, and 5 mg/kg								
Administration:	Oral administration; daily, for 10 days								
Result:	Protected hearing in mammals from different AG antibiotics.								

### REFERENCES

[1]. Kitcher SR, et, al. ORC-13661 protects sensory hair cells from aminoglycoside and cisplatin ototoxicity. JCI Insight. 2019 Aug 8;4(15):e126764.

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

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