

## Nepuvibart

Cat. No.:	HY-145643
CAS No.:	2640224-48-0
Target:	SARS-CoV
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

### BIOLOGICAL ACTIVITY

<b>Description</b>	Nepuvibart (ZRC3308-B10) is an anti-SARS-CoV-2 monoclonal antibody (IgG1 type). Nepuvibart shows good binding affinity to a non-competing epitope on the RBD of the SARS-CoV-2 spike protein. Nepuvibart can be used in combination with <a href="#">ZRC3308-A7</a> (HY-145642) at a ratio of 1:1, which is effective for the prevention of COVID-19 and the early stage of COVID-19 before the development of severe disease <sup>[1]</sup> .									
<b>IC<sub>50</sub> &amp; Target</b>	SARS-CoV-2 <sup>[1]</sup> .									
<b>In Vitro</b>	<p>Nepuvibart (ZRC3308-B10; 0-5×10<sup>5</sup> ng/mL) shows virus neutralizing ability in VeroE6/Vero CCL81 (SARS-CoV-2 infection model) cells, when in combination with ZRC3308-A7 (ratio 1:1)<sup>[1]</sup>.</p> <p>Nepuvibart neutralizes SARS-CoV-2 variants B.1.1.7, B.1.351, B.1.617.2, and B.1.617.2AY.1 in vitro, when in combination with ZRC3308-A7 (ratio 1:1)<sup>[1]</sup>.</p> <p>Nepuvibart binds to the RBD of SARS-CoV-2 S1 protein<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay<sup>[1]</sup></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Cell Line:</td> <td>VeroE6/Vero CCL81 cells (SARS-CoV-2 infection model)</td> </tr> <tr> <td>Concentration:</td> <td>0-5×10<sup>5</sup> ng/mL (in combination with ZRC3308-A7)</td> </tr> <tr> <td>Incubation Time:</td> <td>72 h</td> </tr> <tr> <td>Result:</td> <td>Showed potent neutralization activity with an IC<sub>50</sub> of 0.1283 ng/mL.</td> </tr> </table>		Cell Line:	VeroE6/Vero CCL81 cells (SARS-CoV-2 infection model)	Concentration:	0-5×10 <sup>5</sup> ng/mL (in combination with ZRC3308-A7)	Incubation Time:	72 h	Result:	Showed potent neutralization activity with an IC <sub>50</sub> of 0.1283 ng/mL.
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<b>In Vivo</b>	<p>Nepuvibart (ZRC3308-B10; 0.5, 2.5, 25 mg/kg; 48 h prior to the SARS-CoV-2 infection) effectively prevents SARS-CoV-2 infection in syrian hamster, when in combination with ZRC3308-A7 (ratio 1:1)<sup>[1]</sup>.</p> <p>Nepuvibart (0.5, 2.5, 25 mg/kg; i.p.; single) shows the serum levels remains constant without much reduction for up to 7 days, in syrian hamster<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Animal Model:</td> <td>Female syrian hamster (7 to 10-week-old; SARS-CoV-2 infection model)<sup>[1]</sup>.</td> </tr> <tr> <td>Dosage:</td> <td>0.5, 2.5, 25 mg/kg</td> </tr> </table>		Animal Model:	Female syrian hamster (7 to 10-week-old; SARS-CoV-2 infection model) <sup>[1]</sup> .	Dosage:	0.5, 2.5, 25 mg/kg				
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Administration:	Intraperitoneal injection; 48 h prior to the SARS-CoV-2 infection
Result:	Prevented SARS-CoV-2 infection when in combination with ZRC3308-A7.

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## REFERENCES

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[1]. Yadav PD, et al. ZRC3308 Monoclonal Antibody Cocktail Shows Protective Efficacy in Syrian Hamsters against SARS-CoV-2 Infection. *Viruses*. 2021 Dec 3;13(12):2424.

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

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