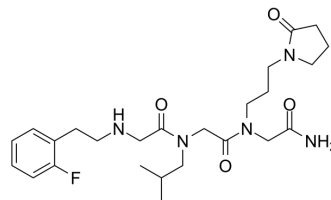


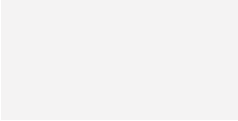
BN201

Cat. No.:	HY-135749
CAS No.:	1361200-34-1
Molecular Formula:	C ₂₅ H ₃₈ FN ₅ O ₄
Molecular Weight:	491.6
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	BN201 promotes neuronal differentiation, the differentiation of precursor cells to mature oligodendrocytes (EC ₅₀ of 6.3 μM) in vitro, and the myelination of new axons (EC ₅₀ of 16.6 μM). BN201 is able to cross the blood-brain barrier by active transport and activate pathways (IGF-1 pathway) associated with the response to stress and neuron survival. BN201 has potentially neuroprotective effects ^[1] .								
In Vitro	<p>BN201 (10 μM; 0.5-4 hours; Hela cells) treatment induces the phosphorylation of NDGR1 in Hela cells in a time-dependent manner^[1].</p> <p>BN201 promotes the survival of cultured neural cells when subjected to oxidative stress or when deprived of trophic factors^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>Hela cells</td> </tr> <tr> <td>Concentration:</td> <td>10 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>0.5 hour, 1 hour, 4 hours</td> </tr> <tr> <td>Result:</td> <td>Induced the phosphorylation of NDGR1 in Hela cells in a dose- and time-dependent manner.</td> </tr> </table>	Cell Line:	Hela cells	Concentration:	10 μM	Incubation Time:	0.5 hour, 1 hour, 4 hours	Result:	Induced the phosphorylation of NDGR1 in Hela cells in a dose- and time-dependent manner.
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Result:	Induced the phosphorylation of NDGR1 in Hela cells in a dose- and time-dependent manner.								
In Vivo	<p>BN201 (12.5-150 mg/kg; intraperitoneal injection; daily; for 30 days; female C57BL/6 mice) treatment displays less axonal loss and neuron loss in both the spinal cord and in the optic nerve than the animals that received placebo^[1].</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>Female C57BL/6 mice (8-12 weeks old) by immunization with MOG₃₅₋₅₅ (experimental autoimmune encephalitis, EAE)^[1]</td> </tr> <tr> <td>Dosage:</td> <td>12.5 mg/kg, 25 mg/kg, 50 mg/kg, 100 mg/kg, 150 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Intraperitoneal injection; daily; for 30 days</td> </tr> <tr> <td>Result:</td> <td>Displayed less axonal loss and neuron loss in both the spinal cord and in the optic nerve</td> </tr> </table>	Animal Model:	Female C57BL/6 mice (8-12 weeks old) by immunization with MOG ₃₅₋₅₅ (experimental autoimmune encephalitis, EAE) ^[1]	Dosage:	12.5 mg/kg, 25 mg/kg, 50 mg/kg, 100 mg/kg, 150 mg/kg	Administration:	Intraperitoneal injection; daily; for 30 days	Result:	Displayed less axonal loss and neuron loss in both the spinal cord and in the optic nerve
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REFERENCES

[1]. Villoslada P, et al. Axonal and Myelin Neuroprotection by the Peptoid BN201 in Brain Inflammation. *Neurotherapeutics*. 2019 Jul;16(3):808-827.

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

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