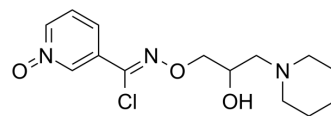


Anti-neurodegeneration agent 1

Cat. No.:	HY-U00314
CAS No.:	289893-23-8
Molecular Formula:	C ₁₄ H ₂₀ ClN ₃ O ₃
Molecular Weight:	313.78
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Anti-neurodegeneration agent 1 a neurodegeneration-targeting compound extracted from patent WO2008039514A1, Compound I.
In Vivo	<p>In Anti-neurodegeneration agent 1 (Compound I)-treated mSOD1^(G93A) mice, Western blot analysis reveals an observable 'band shift' of HSF-I, indicative of a stress-induced activation of HSF-I by hyper-phosphorylation. Immunostaining reveals that, at 120 days of age, expression of Hsp70 and Hsp90 is increased in the lumbar spinal cords of both untreated and Anti-neurodegeneration agent 1- treated SOD1^(G93A) mice, although there is a clear increase in the intensity of Hsp70 and Hsp90 immunoreactivity in motor neurons of Anti-neurodegeneration agent 1-treated mSOD1^(G93A) mice. Anti-neurodegeneration agent I- treated mice live an average of 153 days (±2.6 SEM, n=7). This represents a significant increase in lifespan of over 22% (p<0.001). The effect of beginning Anti-neurodegeneration agent 1 treatment at the time of disease onset is also tested by starting treatment at 70 days of age, when the first signs of locomotor defects are observed. Anti-neurodegeneration agent 1 treatment from 70 days of age extended the mean lifespan of mSOD1^(G93A) mice by 23 days, from 125 days (±1.8 SEM, n=18) in the untreated group to 148 days (±1.5 SEM, n=5) in the treated group. This represents an increase in lifespan of 18% (p<0.001)^[1]</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

PROTOCOL

Animal Administration ^[1]	<p>Mice^[1]</p> <p>Transgenic mice over-expressing human mutant SOD1 are used. Anti-neurodegeneration agent 1 is tested for the ability to prevent the progressive loss of motor neurons and muscle function known to occur in mSOD1^(G93A) mice. mSOD1^(G93A) mice of both sexes are treated daily with Anti-neurodegeneration agent 1 (10 mg/kg, ip) from 35 or 70 days of age^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
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REFERENCES

[1]. BARBER, Jack R. PHARMACEUTICAL COMPOSITIONS AND METHODS FOR TREATING DISEASES ASSOCIATED WITH NEURODEGENERATION. WO2008039514A1.

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

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