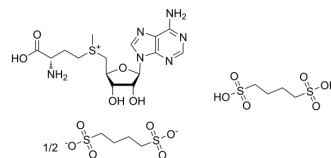


SAMe-1,4-Butanedisulfonate

Cat. No.:	HY-W105505
CAS No.:	101020-79-5
Molecular Formula:	$C_{15}H_{23}N_6O_5S.C_4H_{10}O_6S_{2.1}/2C_4H_8O_6S_2$
Molecular Weight:	726.82
Target:	Biochemical Assay Reagents
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	SAMe-1,4-Butanedisulfonate, a natural compound, is a methyl donor in the central nervous system. SAMe-1,4-Butanedisulfonate has antidepressant activity. SAMe-1,4-Butanedisulfonate can be used for research of CNS disorders ^{[1][2][3][4]} .								
In Vivo	<p>SAMe-1,4-Butanedisulfonate (30 and 60 mg/kg/day, i.m) increases the thickness and cell density of lesioned cartilages in experimental osteoarthritis rabbit^[2].</p> <p>SAMe-1,4-Butanedisulfonate (60 and 100 mg/kg/day, i.m) protects from liver injury induced by d-galactosamine in rats^[3].</p> <p>SAMe-1,4-Butanedisulfonate (10-200 mg/kg, i.p.) shows antidepressant-like effects mice submitted to the forced swimming test (FST) and tail suspension test (TST)^[4].</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>Mice submitted to the forced swimming test (FST) and tail suspension test (TST)^[4]</td> </tr> <tr> <td>Dosage:</td> <td>10, 255, 50, 100, 200 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>i.p.</td> </tr> <tr> <td>Result:</td> <td>Reduced the immobility time in the FST and reduced the total distance traveled.</td> </tr> </table>	Animal Model:	Mice submitted to the forced swimming test (FST) and tail suspension test (TST) ^[4]	Dosage:	10, 255, 50, 100, 200 mg/kg	Administration:	i.p.	Result:	Reduced the immobility time in the FST and reduced the total distance traveled.
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Dosage:	10, 255, 50, 100, 200 mg/kg								
Administration:	i.p.								
Result:	Reduced the immobility time in the FST and reduced the total distance traveled.								

REFERENCES

- [1]. Delle Chiaie R, et al. Efficacy and tolerability of oral and intramuscular S-adenosyl-L-methionine 1,4-butanedisulfonate (SAMe) in the treatment of major depression: comparison with imipramine in 2 multicenter studies. *Am J Clin Nutr.* 2002 Nov;76(5):1172S-6S.
- [2]. Barceló HA, et al. Osteoarthritis experimental y su evolución bajo tratamiento con S-adenosil-L-metionina (SAMe) [Experimental osteoarthritis and its course when treated with S-adenosyl-L-methionine]. *Rev Clin Esp.* 1990 Jun;187(2):74-8. Spanish.
- [3]. Stramentinoli G, et al. Protective role of S-adenosyl-L-methionine on liver injury induced by D-galactosamine in rats. *Biochem Pharmacol.* 1978 May 15;27(10):1431-3.
- [4]. Sales AJ, et al. S-adenosyl-L-methionine antidepressant-like effects involve activation of 5-HT1A receptors. *Neurochem Int.* 2023 Jan;162:105442.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA