

Product Data Sheet

Product Name: Taurine-d4

Cat. No.: GC49426

Chemical Properties

Cas. No. 342611-14-7

SMILES O=S(C([2H])([2H])C([2H])([2H])N)(O)=O

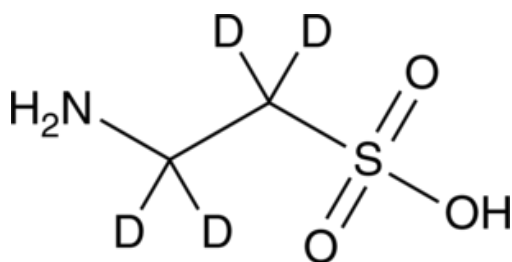
Formula C2H3D4NO3S M.Wt 129.2

Solubility PBS (pH 7.2): 10 mg/ml Storage -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution: ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.

Structure



Background

Taurine-d₄ is intended for use as an internal standard for the quantification of taurine by GC- or LC-MS. Taurine is a sulfur-containing amino acid produced endogenously and also ingested in the diet.¹ It is ubiquitously present in most cells and has diverse biological activities, including antioxidative, anticancer, cardioprotective, and neuroprotective properties.^{1,2,3,4} It scavenges 2,2-diphenyl-1-picrylhydrazyl radicals when used at concentrations ranging from 125 to 1,000 µg/ml and decreases the viability of MCF-7 and MDA-MB-231 human breast cancer cells.² It prevents left ventricular dysfunction in the mdx mouse model of late-stage Duchenne muscular dystrophy when administered at a dose of 1 g/kg per day for six months.³ Taurine (100 µM) prevents neurotoxicity induced by amyloid-β (Aβ) or the glutamate receptor agonists glutamate, NMDA, or kainic acid in chick embryonic retinal neurons, an effect that can be blocked by the GABA_A receptor antagonist

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

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picrotoxin .⁴

1.Schaffer, S., and Kim, H.W.Effects and mechanisms of taurine as a therapeutic agentBiomol. Ther. (Seoul)26(3)225-241(2018) 2.Choi, E.-J., Tang, Y., Lee, C.B., et al.Investigation of antioxidant and anticancer potential of taurine by means of multiple chemical and biological assaysTaurine 9(2018) 3.Mele, A., Manturano, P., De Bellis, M., et al.A long-term treatment with taurine prevents cardiac dysfunction in mdx miceTransl. Res.20482-99(2019) 4.Louzada, P.R., Lima, A.C.P., Mendonça-Silva, D.L., et al.Taurine prevents the neurotoxicity of β -amyloid and glutamate receptor agonists: Activation of GABA receptors and possible implications for Alzheimer's disease and other neurological disordersFASEB J.18(3)511-518(2004)

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