

Product Data Sheet

Product Name: D-Cycloserine

Cat. No.: GC18060

Chemical Properties

Cas. No. 68-41-7

Chemical Name (4R)-4-amino-1,2-oxazolidin-3-one

SMILES C1C(C(=O)NO1)N

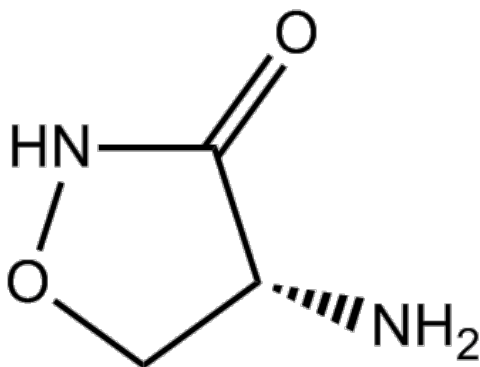
Formula $C_3H_6N_2O_2$ M.Wt 102.09

Solubility DMSO: 1 mg/ml, PBS (pH 7.2): 10 mg/ml Storage Store at -20°C

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

Structure



Background

D-Cycloserine is an analog of the amino acid D-alanine. Target: Antibacterial. D-Cycloserine selectively potentiated the duration of motor cortical excitability enhancements induced by anodal tDCS. D-Cycloserine alone did not modulate excitability [1]. Participants receiving d-cycloserine in addition to exposure therapy reported significantly less social anxiety compared with patients receiving exposure therapy plus placebo. Controlled effect sizes were in the medium to large range [2]. Chronic D-cycloserine significantly reduced nicotine self-administration selectively in rats with low baseline

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

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nicotine use, but was ineffective with the rats with higher levels of baseline nicotine self-administration [3].

References:

- [1]. Nitsche, M.A., et al., Consolidation of human motor cortical neuroplasticity by D-cycloserine. *Neuropsychopharmacology*, 2004. 29(8): p. 1573-8.
- [2]. Hofmann, S.G., et al., Augmentation of exposure therapy with D-cycloserine for social anxiety disorder. *Arch Gen Psychiatry*, 2006. 63(3): p. 298-304.
- [3]. Levin, E.D., et al., D-cycloserine selectively decreases nicotine self-administration in rats with low baseline levels of response. *Pharmacol Biochem Behav*, 2011. 98(2): p. 210-4.

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