
Product Data Sheet

Product Name: Aceclidine

Cat. No.: GC64332

Chemical Properties

Cas. No. 827-61-2

Formula C₉H₁₅NO₂

M.Wt 169.22

Solubility DMSO : 100 mg/mL (590.95 mM; Need ultrasonic) 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**

Aceclidine is an agonist of muscarinic receptors ($EC_{50} = 1.8-17 \mu M$ for human M_2).¹ It induces contraction of iris sphincter muscle, resulting in miosis.^{2,3} Aceclidine has applications in glaucoma therapy and in basic research regarding muscarinic receptor signaling.^{1,2,4}

1.Griffin, M.T., Figueroa, K.W., Liller, S., et al. Estimation of agonist activity at G protein-coupled receptors: analysis of M₂ muscarinic receptor signaling through Gi/o, Gs, and G15. *J. Pharmacol. Exp. Ther.* 321(3)1193-1207(2007) 2.Ishikawa, H., Desantis, L., and Patil, P.N. Selectivity of muscarinic agonists including (+/-)-aceclidine and antimuscarinics on the human intraocular muscles. *J. Ocul. Pharmacol. Ther.* 14(4)363-373(1998) 3.Smith, S.A., and Smith, S.E. Factors determining the potency of cholinomimetic miotic drugs and their effect upon the light reflex in man. *Br. J. Clin. Pharmacol.* 6:149-153(1978) 4.Shannon, H.E., Hart, J.C., Bymaster, F.P., et al. Muscarinic receptor agonists, like dopamine receptor antagonist antipsychotics, inhibit conditioned avoidance response in rats. *J. Pharmacol. Exp. Ther.* 290(2)901-907(1999)

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

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