

Product Data Sheet

Product Name: Zilpaterol-d7

Cat. No.: GC48269

Chemical Properties

Cas. No. 1217818-36-4

SMILES O=C1NC2=CC=CC3=C2N1CC[C@H](NC(C([2H])([2H])[2H])([2H])C([2H])([2H])[2H])[C@H]3O

Formula C₁₄H₁₂D₇N₃O₂

M.Wt 268.4

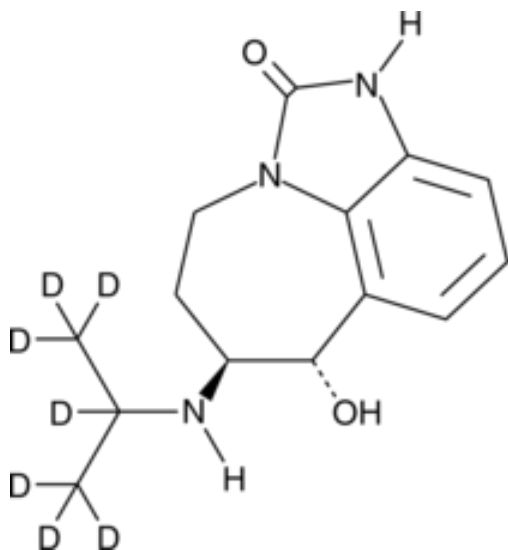
Solubility

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

Zilpaterol-d7 is intended for use as an internal standard for the quantification of zilpaterol by GC- or LC-MS. Zilpaterol is a β -adrenergic receptor agonist that putatively, through activation of protein kinase A, increases protein synthesis in skeletal muscle fibers as well as reduces lipogenesis and increases lipolysis in adipose tissues.^{1,2} Formulations containing zilpaterol have been used to

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increase lean body weight and improve feed efficiency in commercial beef cattle.³

1. Avendaño-Reyes, L., Torres-Rodríguez, V., Meraz-Murullo, F.J., et al. Effects of two β -adrenergic agonists on finishing performance, carcass characteristics, and meat quality of feedlot steers. *J. Anim. Sci.* 84(12):3259-3265 (2006)
2. Miller, E.K., Chung, K.Y., Hutcheson, J.P., et al. Zilpaterol hydrochloride alters abundance of β -adrenergic receptors in bovine muscle cells but has little effect on de novo fatty acid biosynthesis in bovine subcutaneous adipose tissue explants. *J. Anim. Sci.* 90(4):1317-1327 (2012)
3. Delmore, R.J., Hodgen, J.M., and Johnson, B.J. Perspectives on the application of zilpaterol hydrochloride in the United States beef industry. *J. Anim. Sci.* 88(8):2825-2828 (2010)

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