
Product Data Sheet

Product Name: KW 3902

Cat. No.: GC12417

Chemical Properties

Cas. No. 136199-02-5

Chemical Name 8-((2R,3as,5S,6as)-octahydro-2,5-methanopentalen-3a-yl)-1,3-dipropyl-1H-purine-2,6(3H,7H)-dione

SMILES O=C1N(CCC)C(N(CCC)C2=C1NC([C@@]3(C[C@H]4C5)[C@H]5C[C@H](C4)C3)=N2)=OFormula C₂₀H₂₈N₄O₂ M.Wt 356.46

Solubility DMF: 20 mg/ml, DMSO: 20 mg/ml, DMSO:PBS (pH 7.2) (1:1): 0.5 mg/ml, Ethanol: 0.5 mg/ml 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**

Rolofylline (KW-3902) is a potent, selective adenosine A1 receptor antagonist that is under development for the treatment of patients with acute congestive heart failure and renal impairment. Rolofylline is metabolized primarily to the pharmacologically active M1-trans and M1-cis metabolites by cytochrome P450 (CYP450)[1]. Rolofylline is alleviating the presynaptic dysfunction and restores neuronal activity as well as dendritic spine levels in vitro, is an interesting candidate to combat the hypometabolism and neuronal dysfunction associated with Tau-induced neurodegenerative diseases[2].

References:

[1]. Stroh M, et al. Simultaneous pharmacokinetic model for rolofylline and both M1-trans and M1-cis metabolites. AAPS J. 2013 Apr;15(2):498-504.

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

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[2]. Dennissen FJ, et al. Adenosine A1 receptor antagonist rolofylline alleviates axonopathy caused by human Tau Δ K280. Proc Natl Acad Sci U S A. 2016 Oct 11;113(41):11597-11602. Epub 2016 Sep 26.

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