

Product Data Sheet

Product Name: Thiochrome

Cat. No.: GC38950

Chemical Properties

Cas. No. 92-35-3

SMILES OCCCC1=C(C)N2CC3=CN=C(C)N=C3N=C2S1

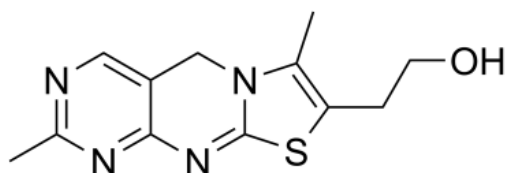
Formula $C_{12}H_{14}N_4OS$ M.Wt 262.33

Solubility DMSO: 25 mg/mL (95.30 mM) 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

Thiochrome, a natural oxidation product and metabolite of thiamine, is a selective M4 muscarinic receptor of acetylcholine (ACh) affinity enhancer. Thiochrome has neutral cooperativity with ACh at M1 to M3 receptors[1][2].

Thiochrome can increase the intensity of the reproduction process of the representatives of one-cell organisms worms, crustaceans, insects and fishes[1].

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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[1]. Petrov SA, et al. Administration of Thiamine and Thiochrome Enhanced Reproduction of Chlorella, Drosophila melanogaster, and Danio. J Nutr Sci Vitaminol (Tokyo). 2016;62(1):6-11. [2]. Lazareno S, et al. Thiochrome enhances acetylcholine affinity at muscarinic M4 receptors: receptor subtype selectivity via cooperativity rather than affinity. Mol Pharmacol. 2004 Jan;65(1):257-66.

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