

Product Data Sheet

Product Name: JNJ-10229570

Cat. No.: GC30194

Chemical Properties

Cas. No. 524923-88-4

SMILES COC1=C(C=CC=C1)C(N(C2=C(C=CC=C2)OC)S/3)=NC3=N\C4=CC=CC=C4

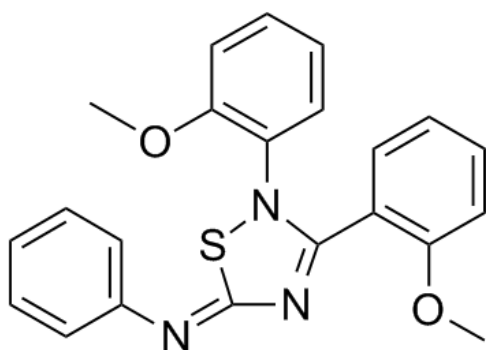
Formula $C_{22}H_{19}N_3O_2S$ M.Wt 389.47

Solubility DMSO : 62.5 mg/mL (160.47 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



Protocol

Animal experiment: Mice[1] Human skins transplanted onto SCID mice are topically treated with vehicle or JNJ-10229570 (0.05%) for 30 days[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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References:

[1]. Eisinger M, et al. A melanocortin receptor 1 and 5 antagonist inhibits sebaceous gland differentiation and the production of sebum-specific lipids. J Dermatol Sci. 2011 Jul;63(1):23-32.

Background

JNJ-10229570 is an antagonist of melanocortin receptor 1 (MC1R) and melanocortin receptor 5 (MC5R), which inhibits sebaceous gland differentiation and the production of sebum-specific lipids. JNJ-10229570 inhibits the binding of 125I-NDP- α -MSH to cells expressing human MC1R and MC5R, with IC₅₀ values of 270 nM and 200 nM, respectively.

JNJ-10229570 dose dependently inhibits the production of sebaceous lipids in cultured primary human sebocytes. JNJ-7818369 inhibits the binding of 125I-NDP- α -MSH to cells expressing human MC1R and MC5R, with IC₅₀s of 270 $\pm$ 120 and 200 $\pm$ 50 nM, respectively. Nearly-identical results are obtained with the free base form of the compound. Binding to MC4R of both forms of the compound is equipotent, with IC₅₀s of 240 $\pm$ 170 nM. JNJ-10229570-treated cells show strong inhibition of lipid granules at 0.01 μ M, and complete inhibition at 0.05 μ M[1].

Topical treatment with JNJ-10229570 of human skins transplanted onto SCID mice result in a marked decrease in sebum-specific lipid production, sebaceous gland's size and the expression of the sebaceous differentiation marker epithelial-membrane antigen (EMA). Topical treatment with 0.05% JNJ-10229570 leads to a distinct reduction in both the steady-state and the newly-synthesized sebum-specific lipids, with lesser effects on triglycerides and cholesterol[1].

[1]. Eisinger M, et al. A melanocortin receptor 1 and 5 antagonist inhibits sebaceous gland differentiation and the production of sebum-specific lipids. J Dermatol Sci. 2011 Jul;63(1):23-32.

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