

Product Data Sheet

Product Name: Org41841

Cat. No.: GC32423

Chemical Properties

Cas. No. 301847-37-0

SMILES O=C(C1=C(N)C2=C(C3=CC=CC(OC)=C3)N=C(SC)N=C2S1)NC(C)(C)C

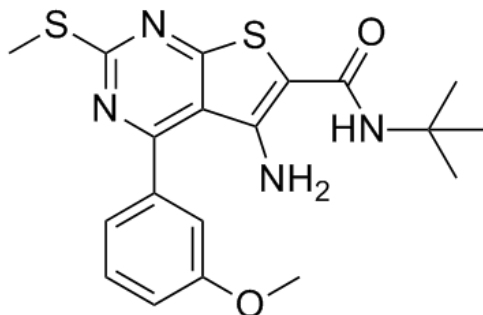
Formula C19H22N4O2S2 M.Wt 402.53

Solubility DMSO : 100 mg/mL (248.43 mM; Storage Store at -20°C
Need ultrasonic)

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

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

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Kinase experiment: Transfected cells are cultured for 48 h before incubation for 1 h in serum-free Dulbecco's modified Eagle's medium containing 1 mM 3-isobutyl-1-methylxanthine and bovine thyroid-stimulating hormone (TSH) (0 to 1.8 μ M) or human LH (0.1 to 1000 ng) or Org41841 (0 to 100 μ M) in a humidified 5% CO₂ incubator. Following aspiration of the medium, cells are lysed using lysis buffer 1 of the cAMP Biotrak Enzymeimmunoassay System. The cAMP content of the cell lysate is determined and data are analyzed[1].

References:

[1]. Holger Jaschke, et al. A low molecular weight agonist signals by binding to the transmembrane domain of thyroid-stimulating hormone receptor (TSHR) and luteinizing hormone/chorionic gonadotropin receptor(LHCGR). J Biol Chem. 2006 Apr 14;281(15):9841-4.

Background

Org41841 is a partial agonist of both luteinizing hormone/chorionic gonadotropin receptor (LHCGR) and thyroid-stimulating hormone receptor (TSHR) with EC₅₀s of 0.2 and 7.7 μ M, respectively.

Functional assays demonstrate that Org41841 is a partial agonist of both luteinizing hormone/chorionic gonadotropin receptor (LHCGR) and thyroid-stimulating hormone receptor (TSHR) with EC₅₀s of 0.2 and 7.7 μ M, respectively. Treatment of L570F with Org41841 reveals an improved EC₅₀ of 800 nM. M9 responds to Org41841 with an improved EC₅₀ of 2700 nM and a greatly improved efficacy for signaling to 99% of the maximal value observed for thyroid-stimulating hormone (TSH) stimulation of thyroid-stimulating hormone receptor (TSHR)[1].

[1]. Holger Jaschke, et al. A low molecular weight agonist signals by binding to the transmembrane domain of thyroid-stimulating hormone receptor (TSHR) and luteinizing hormone/chorionic gonadotropin receptor(LHCGR). J Biol Chem. 2006 Apr 14;281(15):9841-4.

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