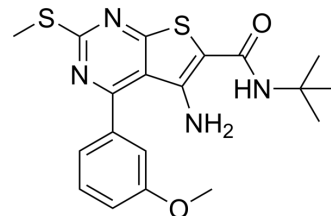


Org41841

Cat. No.:	HY-100271		
CAS No.:	301847-37-0		
Molecular Formula:	C ₁₉ H ₂₂ N ₄ O ₂ S ₂		
Molecular Weight:	402.53		
Target:	TSH Receptor		
Pathway:	GPCR/G Protein		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (248.43 mM; Need ultrasonic)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.4843 mL	12.4214 mL	24.8429 mL
	5 mM	0.4969 mL	2.4843 mL	4.9686 mL
	10 mM	0.2484 mL	1.2421 mL	2.4843 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

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 μM, respectively.

IC₅₀ & Target

EC₅₀: 0.2 μM (LHCGR), 7.7 μM (TSHR)^[1]

In Vitro

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 μM, 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].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Kinase Assay ^[1]

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].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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.

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

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