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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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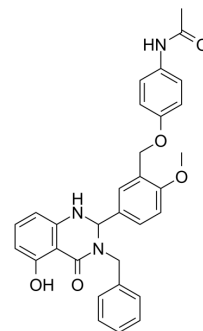
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ML-109

Cat. No.:	HY-114116		
CAS No.:	1186649-91-1		
Molecular Formula:	C ₃₁ H ₂₉ N ₃ O ₅		
Molecular Weight:	523.58		
Target:	TSH Receptor		
Pathway:	GPCR/G Protein		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro	DMSO : 83.33 mg/mL (159.15 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM		1.9099 mL	9.5496 mL	19.0993 mL
		5 mM		0.3820 mL	1.9099 mL	3.8199 mL
		10 mM		0.1910 mL	0.9550 mL	1.9099 mL
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.17 mg/mL (4.14 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.17 mg/mL (4.14 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.17 mg/mL (4.14 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	ML-109 is a potent and full thyroid stimulating hormone receptor (TSHR) agonist, with an EC ₅₀ of 40 nM.
IC ₅₀ & Target	EC ₅₀ : 40 nM (TSHR) ^[1] .
In Vitro	ML-109 (Compound 2) is a full agonist at TSHR with an EC ₅₀ of 40 nM and, like compound 1, it has no activity at FSHR or LHCGR. ML-109 contains an aminal, a functional group that is subject to hydrolysis and/or other degradation mechanisms. ML-109 is surprisingly stable at neutral and basic conditions (t _{1/2} of ~16 h) but is found to degrade at low pH (t _{1/2} of ~3 h) ^[1] .

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

REFERENCES

[1]. Neumann S, et al. Small-molecule agonists for the thyrotropin receptor stimulate thyroid function in human thyrocytes and mice. Proc Natl Acad Sci U S A. 2009 Jul 28;106(30):12471-6.

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

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