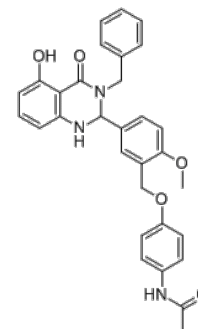


Product Name : ML-109
Cat. No. : PC-35977
CAS No. : 1186649-91-1
Molecular Formula : C₃₁H₂₉N₃O₅
Molecular Weight : 523.589
Target : Thyrotropin Receptor
Solubility : 10 mM in DMSO



Biological Activity

ML-109 (ML109, CID-25246343) is the first selective and orally available small-molecule thyroid stimulating hormone receptor (**TSHR**) agonist with EC₅₀ of 40 nM.

ML109 is highly selective for human TSHR over other glycoprotein hormone receptors, such as LHCGR and FSHR (EC₅₀>100 uM), and interacts with the receptor's serpentine domain.

ML-109 increases mRNA levels for thyroglobulin, thyroperoxidase, sodium iodide symporter, and deiodinase type 2, as well as deiodinase type2 enzyme activity in primary cultures of human thyrocytes.

ML-109 stimulated thyroid function in mice.

References

Neumann S, et al. *Proc Natl Acad Sci U S A*. 2009 Jul 28;106(30):12471-6.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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