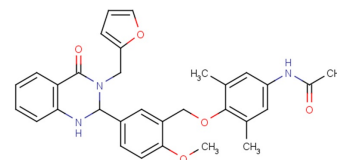


ML224

## Chemical Properties

CAS No.:	1338824-21-7
Formula:	C <sub>31</sub> H <sub>31</sub> N <sub>3</sub> O <sub>5</sub>
Molecular Weight:	525.59
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



## Biological Description

Description	ML224 is a selective TSHR inverse agonist. ML224 also inhibits TSH-stimulated cAMP production (IC <sub>50</sub> = 2.3 μM).
Targets(IC <sub>50</sub> )	Others: None
In vitro	ANTAG3 was selective for TSHR inhibition; half-maximal inhibitory doses were 2.1 μM for TSHR and greater than 30 μM for LH and FSH receptors [2].
In vivo	ANTAG3 lowered serum-free T4 by 44% and lowered mRNAs for sodium-iodide cotransporter and thyroperoxidase by 75% and 83%, respectively, in mice treated with TRH. ANTAG3 lowered serum-free T4 by 38% and lowered mRNAs for sodium-iodide cotransporter and thyroperoxidase by 73% and 40%, respectively, in mice given M22 [2].

## Solubility Information

Solubility	DMSO: 100 mg/mL (190.26 mM) ( < 1 mg/ml refers to the product slightly soluble or insoluble)
------------	---

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.903 mL	9.513 mL	19.026 mL
5 mM	0.381 mL	1.903 mL	3.805 mL
10 mM	0.19 mL	0.951 mL	1.903 mL
50 mM	0.038 mL	0.19 mL	0.381 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

### Reference

- Huang W, et al. Identification of Thyroid Stimulating Hormone Receptor Inverse Agonists. Probe Reports from the NIH Molecular Libraries Program
- Neumann S, et al. A selective TSH receptor antagonist inhibits stimulation of thyroid function in female mice. *Endocrinology*. 2014 Jan;155(1):310-4.

Inhibitors · Natural Compounds · Compound Libraries

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use.

Tel:781-999-4286

E-mail:[info@targetmol.com](mailto:info@targetmol.com)

Address:36 Washington Street,Wellesley Hills,MA 02481