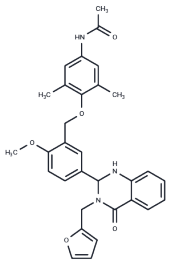
# Data Sheet (Cat.No.T16106)

TargetMol

ML224

## Chemical Properties



CAS No. : 1338824-21-7

Formula: C31H31N3O5

Molecular Weight: 525.59

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

## Biological Description

| | |
|---|---|
| Description | ML224 (NCGC00242364) is a TSHR antagonist for the treatment of Graves' orbital disease and Graves' hyperthyroidism. |
| Targets(IC50) | TSH Receptor |
| In vitro | In human embryonic kidney 293 cells, ML224 exhibits a half-maximal inhibitory concentration (IC50) of 2.1 μM against TSHR after a 20-minute exposure, with a range of 0.001-100 μM. The half-maximal inhibitory concentrations against LH and FSH receptors exceed 30 μM[1]. |
| In vivo | ML224(ANTAG3) 2 mg per mouse; administered through intraperitoneal infusion pump; once daily for 3 days) reduces serum FT4 levels and thyroid mRNA of TPO and NIS in mice subjected to prolonged TRH stimulation[1]. |

## Solubility Information

| | |
|---|---|
| Solubility | DMSO: 80 mg/mL (152.21 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 1.9026 mL | 9.5131 mL | 19.0262 mL |
| 5 mM | 0.3805 mL | 1.9026 mL | 3.8052 mL |
| 10 mM | 0.1903 mL | 0.9513 mL | 1.9026 mL |
| 50 mM | 0.0381 mL | 0.1903 mL | 0.3805 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Neumann S, et al. A selective TSH receptor antagonist inhibits stimulation of thyroid function in female mice. Endocrinology. 2014 Jan;155(1):310-4.



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